FACTUAL

World by a Thread * 3
High Cost of Weather 15
Never, Never Land * 23
Spread of Wild-Fire * 27
Misery Mill, Inc. * * 142
Any Old Bones Today? 155
Movies on the Spot? 163
Homage to Takamine 168
Conscience Money * 184

FICTIONAL

Mars on the Ether * 11
The Condemned * * 187

PERSONAL

Mousetrap and Sage * 33

HISTORICAL

Lord Bacon's Black Hen * * * * * 149
The First Jazz * * 153
Taking French Leave 179

SEMI-FICTIONAL

Onion John * * * 189

SATIRICAL

The Guest of Honor * 8
A Thing to Stir With 167

CONVERSATIONAL

How to Talk Wall Street * * * * 159

CULTURAL

Classic Paintings * 19-22
Forain Lithographs 38-54
The Age of Jewelry * 86
Renaissance Jewelry * * * 87-106
The Flight to Egypt * * * (Insert)
Connick Stained Glass Windows 107-110
Bookmarksmanship * 150
Painting on the Wall 171
Normandie Murals 175-178

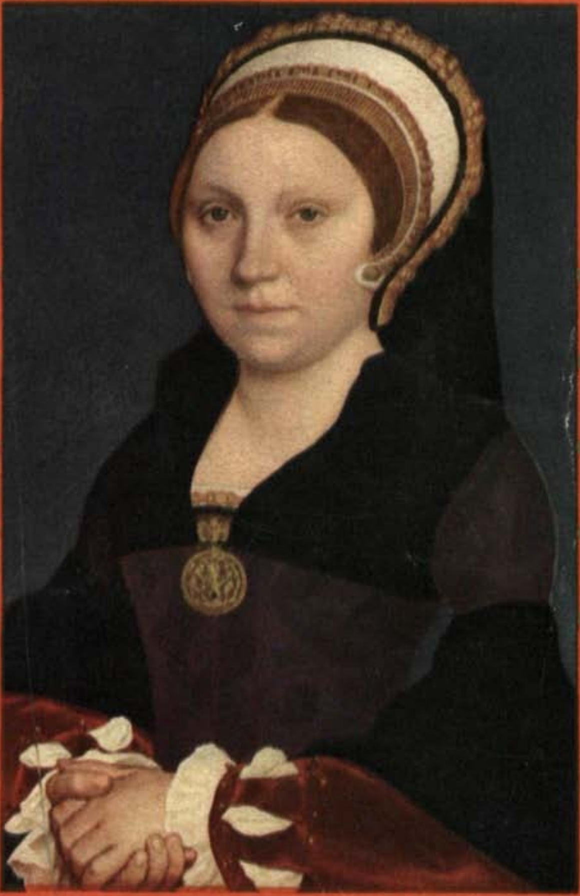
PICTORIAL

Composition * * 56-65
Animals * * * 66-69
Human Interest * 70-82
Strange * * * 83-85
Portfolio * * 111-117
Studies * * 118-129
Sports * * * 130-133
Distortions * 134-135
Portraits * * 136-137
Children * * 138-141

COVER: Portrait of a Gentlewoman, by HANS HOLBEIN, the younger (1497?-1543). Kunsthistorisches Museum, Vienna

CORONET

"INFINITE RICHES IN A LITTLE ROOM"



SEPTEMBER, 1937

THIRTY-FIVE CENTS

IN GREAT BRITAIN 2/6

CORONET

for

SEPTEMBER

1937

TEXTUAL FEATURES

FACTUAL:

World by a Thread — Donald B. Harris 3
High Cost of Weather — Hilton Gregory 15
Never, Never Land — George W. Gray 23
Spread of Wild-Fire — Willy Ley 27
Misery Mill, Inc. — Don Daugherty 142
Any Old Bones Today? — Creighton Peet 155
Movies on the Spot? — Dr. Lee de Forest 163
Homage to Takamine — Dr. Henry George III 168
Conscience Money — Theodore Pratt 184

FICTIONAL:

Mars on the Ether — Lord Dunsany 11
The Condemned — Maxence van der Meersch 187

PERSONAL:

Mousetrap and Sage — Louis Zara 33

HISTORICAL:

Lord Bacon's Black Hen — Edna S. Sollars 149
The First Jazz, Arnold Zweig 153
Taking French Leave — Georges Surdez 179

CULTURAL:

About Jean-Louis Forain — Harry Salpeter 38
Talking Pictures 55
The Age of Jewelry 86
Bookmarksmanship — A. I. Green 150
Painting on the Wall — José Maria Sert 171

CONVERSATIONAL:

How to Talk Wall Street — Stanley Jones 159

SEMI-FICTIONAL:

Onion John . Hope Shippee 189

SATIRICAL:

The Guest of Honor — Clendenin Williams 8
A Thing to Stir With — Richard Adamson 167

MARGINAL:

The Dentist's Busy Day — Fred C. Kelly 14

PICTORIAL FEATURES

COVER:

Portrait of a Gentlewoman by Hans Holbein, the younger (1497?-1543). (Kunsthistorisches Museum, Vienna)

CLASSIC PAINTINGS:

St. Mary Magdalene — Ysenbrandt 19
Lot and His Daughters — van Leyden 20
St. Catherine — van der Weyden 21
Apollo and Daphne — Pollaiuolo 22

PORTFOLIO OF LITHOGRAPHS

Jean-Louis Forain 39-54

INSERT:

The Flight to Egypt — "Meister der Weiblichen Halbfiguren" Opp. 98

STAINED GLASS WINDOWS:

Stephen C. Foster Memorial — Charles Connick 107-110

Continued on inside back cover

DAVID A. SMART

PUBLISHER

CORONET
Sept. 1, 1937

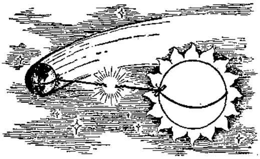
CORONET is published monthly by David A. Smart. Publication, Circulation and General Offices, Esquire—Coronet, Inc., 919 N. Michigan Ave., Chicago, Illinois. Entered as second class matter at Post Office at Chicago, Illinois, on October 14, 1936, under the act of March 3, 1879. Subscriptions for the United States, and possessions, Canada, Cuba, Mexico, Central America, and South America, $4.00 a year in advance; elsewhere $5.00. Reg. U.S. Pat. Off.

Entire contents copr'd 1937 by Esquire Coronet, Inc.

Vol. 2, No. 5
Whole No. 11

WORLD BY A THREAD

SUPPOSE SOMETHING SNAPPED THE GOSSAMER THREAD THAT HOLDS THE EARTH TO ITS ORBIT



LAST winter, when the temperature dropped down below zero, and the wind wheeled around into that old north groove, you just burrowed down deeper into your muffler, tried to make the dash to the street car as short as possible, and comforted yourself with the thought that summer would be coming soon.

Has the thought occurred to you that there might be a time when summer never will come again?

Thousands of years ago, the greater part of the earth's surface was completely covered with a perpetual layer of ice, hundreds of feet thick. That was the great Ice Age. Nobody knows why there was an ice age. And no one can affirm with certainty the impossibility of a recurrence of an ice age lasting for thousands of bleak, chilling years during which life would fade, weaken, and eventually cease to exist on earth.

We are accustomed to think of our ordinary seasonal variations in temperature as being of considerable magnitude. To us 100 degrees Fahrenheit is unbearably hot; thirty degrees below zero insufferably cold. When either of these temperatures is reached, we feel that Nature must be exerting herself strenuously, in order to make us uncomfortable. Temperatures perpetually below the freezing point could not, we think, be achieved without some veritable cataclysm.

Actually, Nature's resources in temperature are so tremendous that the greatest variations in temperature experienced on earth, even in the laboratory, are on a comparative basis completely insignificant. Sir Arthur Eddington estimates that nine-tenths of the matter in the universe has a temperature in excess of 1,800,000 degrees F. He refers to the stars and nebulae, which comprise by far the greater part of such matter. On the other hand, the temperature of interstellar space is not far from 454 degrees below zero. With these figures in mind, our terrestrial range of 130-odd degrees seems infinitesimal.

In fact, Nature could plunge us into a perpetual state of cold, many degrees below freezing, merely by a flip of her little finger. Temperature conditions such as we know them on earth are maintained only by an almost inconceivably delicate balance of forces.

Let us imagine that the temperature of the earth is controlled by a heat regulator such as you have to control your furnace. In order to get even a faint idea of how critical our temperature adjustment is, we must imagine a very large heat regulator with a dial fourteen inches long. One end of this dial is 454 degrees below zero, 1,800,000 degrees above zero the other. Then the normal terrestrial range of temperature is represented by a line on the dial, narrower than the thickness of the thinnest piece of paper. If we are to maintain temperatures on earth as they are today, the pointer must be set squarely in the center of this line; if it is moved to one side or the other by even so much as the thickness of a hair, average temperatures on earth will either drop far below freezing, or rise above the boiling point of water.

In point of fact, the earth is truly provided with a "heat regulator" of gigantic size, comprising such factors as the intensity of radiation from the sun, the transparency and density of our atmosphere, and the force of gravitation. Of these, the force of gravitation is probably the most important. It is literally true that all life on earth is "hanging by a thread": the thread of gravitation which links us to the sun, and holds the earth within the beneficent sphere of its radiation. If this thread should break, if it should stretch ever so slightly, or contract, even by the smallest amount, temperature conditions would so change on earth that we would all immediately freeze to death, or perish in a horror of suffocation and flame.

The force of gravitation is well described by the word "thread." Powerful as it is, sufficing to hold the millions of tons of mass of the earth in a regular orbit, it is yet more intangible than the merest gossamer of spider web. The earth is a speck of dust poised in space, entirely unsupported by any material object, held in its course by an abstraction, concerning the nature of which we know nothing.

At the present time it is known that the earth, due to tidal action, is receding from the sun at the rate of about three feet each century. Eventually, and inexorably, this recession will bring the earth so far away from the sun that its temperature will drop below the minimum necessary to sustain life. This will not happen for millions of years.

But suppose that some other circumstance unforseen at this time enters into play, and knocks the earth out of its established path, even very slightly. Suppose, for example, that the solar system is invaded by a dark star. Evidence for the existence of such stars is very strong, and due to their lack of luminosity, they could not be seen until fairly within the boundaries of the solar system. Once within, perturbations would speedily pull the earth from its orbit.

The probabilities of such an occurrence are certainly very slight, but in the complete absence of any information as to the number of dark stars in the universe, we do not know just how slight they are. Perhaps they are not so slight as we think.

Let us imagine that in November, 1941, an observatory announces the discovery of an unknown object in the constellation Taurus. The preliminary announcement contains very little information regarding the nature of this object, for it takes time to determine matters of this kind.

We then hear that the unexpected has happened: the solar system is being invaded by a dark star.

Considerable interest is created by this unprecedented announcement, and groups of people are to be seen everywhere in the evening hours gazing toward the constellation Taurus which rises out of the east an hour or so after sunset. But nothing is to be seen, for as yet the star is beyond the limit of visibility, except with a telescope. Soon the astronomers announce further facts in regard to the star. It is a completely dark star, having no luminosity of its own and revealing its location only by light reflected from the sun, just as in the case of our own earth and the other planets.

It is not until the first part of May, 1943, that the star begins to be visible. On a clear, moonless night those with good eyesight can sense the existence of a tiny, barely perceptible point of light just to the right of the bright red star Aldebaran. By the spring of 1944 the star is easily visible to the naked eye. Now ensues a long period of waiting, during which it slowly increases in brightness, at the same time moving slightly westward. We gradually come to accept it as a natural part of the celestial landscape. Finally, in November, 1951, ten years after its original discovery, we look up to find that it is one of the brightest objects in the heavens.

During 1952 its westward motion continues, carrying it out of Taurus into Aries, close to the planet Jupiter, whose brightness it now far exceeds. By January, 1953, the size of the star starts to increase at a prodigious rate. By July 1, it appears as a full fledged moon, having a diameter almost one-sixth that of our satellite. It now far outshines any other heavenly body, save the moon, and is plainly visible through the day, as it rushes toward the earth at the terrific velocity of forty-six miles per second. It will not strike the earth directly, the astronomers assure us of that, but it will come so close that the consequences will be only slightly less disastrous.

During the month of July, it increases even more rapidly in size, until by the first of August, it is one-third as large as the moon. And now, after eleven years, during which we have regarded its slow approach with mildly academic interest, possibly even with indifference, we suddenly find ourselves plunged into a reality of chaos, such as the world has never before known, and can never know again. Since about the middle of July we have observed a disturbance of increasing severity in the tides of the ocean. In addition to the usual solar and lunar tides, a third tide has arisen, due to the star. This tide has increased daily, until, by the last week of August it has dwarfed the solar and lunar tides to insignificance. Flood waters have completely inundated New York, Charleston, Miami, San Francisco, Seattle, and all other coastal cities, and still the tides have continued to increase. On August 1, they are no less than 300 feet in height, and under the force of this terrific wall of water which sweeps over the land, not a building is left standing in New York, or in any other coastal city. Those of the population who have been able to escape have retreated westward, but still they are not safe, for the flood waters follow them, daily penetrating a little further from the seacoast and flooding in succession cities located at greater distances inland. Pittsburgh falls, then Chicago, and still the tides roll on, with ever increasing intensity.

The star now suddenly starts to shoot across the celestial sphere in a westerly direction, growing prodigiously in size each day, until on August 11 it has an apparent diameter more than ten times that of the moon. It has now reached opposition and will come no closer to the earth. But it is already too close. There is now a tremendous tidal wave sweeping twice daily completely across every continent on earth, flooding every square inch of surface and leaving only the tops of the highest mountains and plateaus protruding out of the maelstrom. The force of the waters is such that every tree, dwelling, every work of man, even the soil itself have been carried before them, leaving the earth a denuded rocky waste.

Let us suppose that we are among the fortunate persons who have been able to reach a mountain top or some other haven. As we look below us at sunset on August 11, we see nothing within our range of vision but a mad whirlpool of swirling waters. And to the east, the upper edge of the star is beginning to rise into view. Shrouded by the mists of the horizon it is a dull red ball of terrifying size, ten times as large as the sun, which is just now sinking from sight in the west. Throughout the evening, we watch it climbing into the sky, losing its ruddy tint, becoming a glaring silvery omen of cataclysm. It is very like the moon, icy, lifeless, devoid of shade or color, a cold skull of rock of gigantic proportions.

We would best make preparations for an extended stay on our mountain top, for we speedily find that our hopes for an immediate subsidence of the flood are not justified. After a week, the star appears to be no further away than before, and there is no noticeable abatement in the depth and fury of the waters below us.

Slowly we realize that the invader has come so close to us that it has wrested the earth completely away from the gravitational grip of the sun.

We are now revolving around it, in a period of about four and one-half days, and will continue to do so forever, following it into whatever corners of the universe its destiny may direct.

And now, just as we watched the gradual approach of the star, and saw it changing from a mere point of light to a prodigious moon, so we watch the sun apparently receding from the earth. On January 1, 1954, the solar diameter has decreased to half its normal value. At last the tides are stilled, for they are frozen solid. The temperature of the earth has dropped far below the freezing point, even at the equator. Water can no longer exist in liquid form, and even as we look, the torrents seething along the base of our mountain outlook slowly congeal into Niagaras of ice.

The spring of 1954 approaches, but there is no longer spring for the earth: the seasons have departed, never to return. By the middle of June, 1954, the sun's disc has decreased to one-eighth its former size. Now if we are to witness the rest of the earth's death-drama, we must equip ourselves not only with garments insulated from the cold, but also with oxygen masks. In the hollow places appear little pools of what we take to be water: but it is not water, it is liquid air. The average temperature of the earth is now about 256 degrees below zero, a value so low that our atmosphere is no longer able to retain its normal gaseous form. By degrees it liquefies almost completely, leaving a jet black sky through which the stars shine brilliantly, even at midday.

By February, 1957, the sun has become so small, that its disc can no longer be seen. Still by far the brightest star in the heavens it nevertheless appears as a mere point of light and its feeble rays are totally inadequate to support even the slightest vestige of life on earth. In spite of the enhanced transparency of the atmosphere, the earth is now bathed in perpetual darkness.

On May 1, 1965, some twenty-three years after the date when the discovery of the star was first announced, we are definitely outside the boundaries of the solar system, far out in cold and vacant space, beyond the orbit of the outermost planet. As we gaze back toward the sun, now a tiny point of blazing light, we know that we are leaving it forever, and that the earth has embarked on a new adventure as a roving wanderer among the stars and nebulae. Perhaps, after millions of years, its captor may bring it within the gravitational grasp of some other sun to light and warm it, and tenderly to nourish life on its surface. When that day comes, will man still be there to greet the rising of the new dawn of dawns? Will the human race, indomitable in the face of cosmic fury, ferret out the means of continued existence in the almost illimitable stores of energy within the earth itself? Or, with the passing of the earth from its immemorial hearth, will life, too, pass away forever, out into the stars?

—Donald B. Harris

THE GUEST OF HONOR

IF NINETY-NINE STRIVE FOR INDIVIDUALITY, THE HUNDREDTH IS THE TRUE INDIVIDUALIST

At first the other guests felt a little cheated by Mrs. Anderson's appearance. In her ultra-conventional black evening gown and pearls the guest of honor looked just like anybody else. Somehow everybody had vaguely expected her to come to the party in a bungalow apron or a smock. But they quickly recovered from their disappointment and comforted themselves with the thought that, while Mrs. Anderson might *look* just like anybody else, her work proved that she really *wasn't* one of the herd. Mr. Innes, a run-of-the-mill symphony conductor, broke the ice and asked Mrs. Anderson to tell them something about her work. "Unless," he added hastily, "you don't like to talk about it."

Mrs. Anderson smiled modestly. "Oh, I don't mind talking about my work, but, really, there's nothing much to tell. I'm so accustomed to it that it doesn't seem out of the ordinary to me. Was there anything you especially wanted to ask me?"

Was there? Dozens of things! Mr. Innes got in his oar. "I've always wondered if, in your kind of work, you can force yourself, or do you have to wait for inspiration?"

Mrs. Anderson laughed pleasantly and put them all at ease. "Dear me, keeping house isn't so *very* different from the more usual occupations that all of you follow—painting, writing, designing, and so on. Of course I can force myself to work. In fact, I try to work every day on a schedule. I start in every morning at seven-thirty and work right through, without interruption, until one o'clock."

Mr. Jamison, an etcher, looked surprised. "Do you mean to say that you can turn out a certain amount of work each day?"

"Not exactly that, but I do try to get *some* work done every day." Mrs. Anderson's tone was kindly tolerant. "Some days I get better results than others. For instance, last Monday when I used the vacuum sweeper I got through three thousand pushes in two hours. The dirt fairly rolled out of the rugs. But Thursday it took me most of the morning just to clean the living room rug. However, I do think that sometimes when I work slowly, as I did Thursday, the quality of my work is a lot better than when I turn it out so rapidly and there isn't so much revision to do."

"Do you revise very much?" Ina Ludlow, a novelist, inquired.

"Oh, yes," Mrs. Anderson assured her. "As soon as I finish cleaning a room I look it over to see where I can polish it a little more, where I've left a dangling spiderweb, or an awkward construction on the whatnot."

"But inspiration does count for something, doesn't it?"

"Indeed it does. Particularly in the more creative phase of my work. You should see my butterscotch pudding on one of my off days." Mrs. Anderson laughed reminiscently. "It's a dull, trite thing, I assure you."

There was a general murmur of denial that anything from Mrs. Anderson's stove could lack sparkle.

"You think that because my failures never reach the dining room and ruin my reputation," Mrs. Anderson insisted. "Some of my stuff is so bad that I never send it out of the kitchen."

How human and approachable she was! This was the first time any of them had met an honest-to-goodness housewife and here she was, talking to them right on their own plane. Her charming freedom from affectation emboldened Mr. Barstow, a designer of stage settings, to ask her how she happened to get into the "housekeeping game."

"I guess I always did have a yen for it," Mrs. Anderson confessed. "When I was a youngster I made mud pies and kept my dolls' house ever so tidy. My mother always encouraged my ambitions. I was only thirteen when I first knew the thrill of having my work accepted. It was a very simple thing—a plate of chocolate fudge that I made for a children's party. But it was the thing that really launched me upon my career."

"Then you never went through a period of discouraging rejections?" Ina Ludlow asked.

"Not exactly," Mrs. Anderson admitted, almost reluctantly. "I always got some personal comment on my work if it was refused—that the menu was too crowded to permit them to use my aspic jelly, or some such little word that kept me from despair."

Barbara Lee, a radio singer, elbowed her way into the group. "You must meet a lot of interesting people in your work," she suggested.

Mrs. Anderson agreed and tossed off a few delightful idiosyncrasies of a couple of leading green grocers. "But much of my work requires solitude," she added. "When I clean the bathroom I don't want a soul to come near me until the floor dries."

"But there must be times when you have to have someone share your problems," Barbara persisted.

"Yes, and at such times I find that Mr. Gus Himmelschacher, my butcher, and I work together very sympathetically. His helpful understanding has been responsible for the success of many of my pot roasts."

Mr. Jamison broke in very quickly,

just as Barbara was framing another question, and asked, "When you get a meal, Mrs. Anderson, do you visualize the whole thing before you start work, or do you begin with one dish and let the rest of the meal evolve?"

"I usually start with the principal dish and let the rest of the situation work out naturally from that."

"But where do you get your material?" Mr. Innes wanted to know.

"Here, there, and everywhere. It's on every corner, in every street. One needs only to be observant. Only yesterday I came across something that I'm sure to use soon—a little Italian bakery in a cellar, a place I'd passed often but never before noticed."

To the next two or three questions Mrs. Anderson seemed rather inattentive. Then, suddenly, her alertness returned and she apologized to the group for her momentary lapse. "I was just thinking of a certain piece of work that for days I've been turning 'round in my mind," she explained.

They all wanted to know what it was, if she didn't mind telling.

"Not at all," Mrs. Anderson said graciously. "Cleaning the basement."

"I should think that when you are concentrating on something like that you'd do it at once, while the mood is upon you," Barbara ventured.

"Oh, no. Frequently I turn something over in my mind for weeks before I touch it. I want to see it from all angles before I start work. Why, I got the idea for cleaning the woodwork in the guest room four months before I did a rub on it!"

Mrs. Anderson generously answered a number of other questions. When Mr. Jamison told her about his niece who was very ambitious to keep house and who had made eight batches of muffins but as yet had not succeeded in getting any of them accepted, Mrs. Anderson said she'd be glad to meet the young lady and go over some of her muffins with her. "Though, really," she deprecated herself, "I probably cannot be of much help to her. Tell her that if she really loves the work and keeps right on trying she'll get there some day."

However, when Barbara Lee declared that she'd always wanted to keep house if ever she could find the time for it, and even went on to suggest that she had a lot of ideas that Mrs. Anderson might be able to use, the guest of honor regretted firmly that she would have to leave the party early and asked Mr. Jamison please to find Mr. Anderson for her.

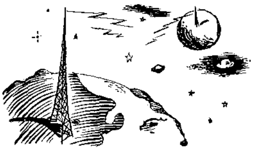
When he located Mr. Anderson, Mr. Jamison simply could not resist one question. "What is it like to have a leading housekeeper for a wife?"

Mr. Anderson smiled nobly. "Oh, I don't mind a bit. I'm glad she didn't let marriage and motherhood force her to give up her work and just settle down to running a dress shop or going on the stage, the way most women do. Bess has her work and I have mine and we respect each other's interests."

—Clendenin Williams

MARS ON THE ETHER

IT WAS MARS BROADCASTING, BUT ONLY ONE MESSAGE WAS RECORDED



OF THE papers left behind by the late Alfred Smulker, with one exception, I have little to say. They seem to reveal a rather selfish life. He must have aimed at a great name, with none to share it. But who remembers Alfred Smulker now? He had ample reason to hope for a great name and, if he had lived a few months more, would have had it, but it would have only been due to a lucky accident, and not to any essential merit in Smulker. The lucky accident was simply that, while fumbling for Daventry, he got his wireless exactly on to a certain number, and, having done that, left it on when he went to bed, and woke and remembered it at about 2 a.m., and came down to turn it off and heard a queer station talking in no known language. And it turned out to be Mars. His name would not have been overlooked had he taken the matter to experts there and then, and certainly progress would have been made, within the year, that it took him ten years to perfect; but he wanted all the honour to himself. His industry was of course colossal, there can be no doubt of that, and he had a certain ingenuity too. It was ingenious how he worked out that these talks which his set got, and continued to get, came from a planet. He hired at considerable expense one of those instruments by which they tell from what direction a wireless message is coming, and he found that the unknown transmitting station was moving. He assumed at first that it was from a ship, but gradually he found that it moved too slowly, even for a ship at a great distance. When he guessed that it was a planet he avoided help from astronomers just as he avoided the help of wireless experts; so he aimed his apparatus at the wastes of Space and worked it all out for himself; and so he got Mars. For the next ten years he worked at the language. And that is where with the help of philologists he could have done the work in a tenth of the time, but he wanted this lone immortal name for himself; which in the end he never got, because he only lived long enough to record one broadcast from the neighboring planet. And this broadcast is the only thing of interest to me in all the volume of his papers, which have come into my hands. These papers deal with thousands of theories of sounds; and on these theories he built up word upon word and sentence upon sentence, none of which had any meaning for hundreds and hundreds of pages; until at last he got a theory which could be worked, and in the course of years he found words, and in the eighth or ninth year got a few coherent sentences. All the time he kept the indicator of his wireless set at the same point, never even allowing it to be dusted, and even protecting it with a sort of safe; for he knew that he had only tuned in to that other set by a hair's breadth, and that if he lost it he would never get it again. And a hair's breadth is far too coarse a measurement by which to define the exactitude of Smulker's happy accident; for, were it otherwise, hundreds of others must have stumbled on it by now, even though it seems only to broadcast in the small hours, and Smulker had a particularly powerful set. Well, for the next two years Smulker was working in all his spare time on the new language; his papers teem with his studies of it; and towards the end of the time he was writing essays in it. And not until he was fluent did he take down any broadcast received from Mars. Or, if he did, he never preserved it. He meant to astonish the world with a perfect message, so that no one could argue or doubt as to whether or not he had been in touch with Mars. It is a pity that the one message he received is not of greater interest in itself: it is evidently merely a lecture upon astronomy, given in some Martian university and broadcast from one of their powerful sets. There will be no more for some while, because after Smulker's death several people had naturally access to his room, and one of them admits to having turned his indicator, when the safe-like protection had been removed from his set, in order to get the right time. And several others may have interfered with it too. This then is the only communication we have from Mars at present; or rather I should say the only communication that is intelligible, for I leave out of account all those untranslated sounds that we usually attribute to atmospherics. Here then is the communication, annotated by Alfred Smulker, and, if it is not in itself thrilling, we must wait for that until we can get in touch with Mars again and so have a wider selection of messages from them.

". . . upon the third planet."

"At these words," writes S., "I realized that the astronomical lecturer was presumably referring to us, and I therefore decided to take the whole thing down verbatim, as it might be of personal interest to the inhabitants of this planet. Otherwise I had intended to wait for something with more local color in it as the first communication from Mars that I should offer to our people."

"The proximity of the third planet

to the sun is not so frightful as to preclude the possibility of its being inhabited, on the ground of heat alone; for, although life in the central portions of the surface would be impossible, there are, as with us, large areas of ice at the poles, and life might be able to exist in the neighborhood of these, were the air fit to breathe. It would seem however that the atmosphere, just over those areas on which life might otherwise have been possible, is composed entirely of clouds, from which the humidity frequently falls, with such force as to extinguish any life there might be, even were it able to breathe that nebulous air. These periods of excessive humidity are frequently accompanied by electric discharges, that have often been clearly detected, which again would destroy all life in the course of time; while life in the central spaces, away from intense humidity, is unthinkable, on account of the great heat of the sun. On these grounds life of any sort on the third planet would appear to be out of the question, unless the sea, of which the surface of the planet is mostly composed, is adapted to the life of some kind of fish. And it should be a source of satisfaction to us to know that this is so; for, the entire universe having been created for the appreciation of the people of Mars (Thlekrethon, Smulker notes that they call it) it is somewhat jarring to our sense of fitness to be told, as Hoyce, Hobbuk and others have told us, that there is any life elsewhere, as though it might be thought that there was something somewhere that could share this great privilege with us.

"If we take seriously the theories of Hoyce and Hobbuk," the lecturer continued, "the people of that planet would be curiously circumstanced: the sun, to begin with, would be an enormous fiery disc, pouring out intolerable heat at them, the natural effects of which seem to have been overlooked by both Hoyce and Hobbuk; and they would have the very curious experience of having only one moon. Of this moon they never see more than half, on account of its single revolution during its tour of the planet turning the same side always towards it. Hence we have the singular paradox that we know more of the geography of their one moon than they do themselves, always supposing with Hoyce and Hobbuk that there is life on that planet at all, and that it is able to see. There would be no other object in view of the third planet, still supposing that there is life on it, that would appear as large as that planet does to us, though they would have a fair view of the second planet; but this would look nothing like as splendid as the third planet must to it. They would also miss much of the splendor of the great fifth planet, which we are privileged to see. But, to turn from these fancies and discuss the third planet seriously: the greater part of its surface being covered with water, and any inhabitant of the land having only clouds to breathe, except where the sun is too hot for life to be possible, we should be content with its function of giving a certain brilliance to our sky, and not suppose it to be capable of maintaining some lower form of life."

At this point the annotations of Smulker are very numerous, and, from the smallness of the writing that he has crowded in, it would appear that he often inserted them whenever his feelings were stirred again with the indignation caused by the innocent remark of the Martian lecturer. He seems even to have missed, while making the earlier annotations, some of the lecture itself, for there is an evident gap.

The lecturer continued: "Whatever inferior forms of life we may perhaps admit as being possible there, we must exclude the possibility of anything with more than four ears or any intelligence capable of understanding the purpose of Mars (or Thlekrethon, as he called it) or the glory and greatness of her people."

There are more indignant annotations by Smulker and then the lecturer seemed to approach his peroration, after some rather dull passages which I will not quote, dealing with the chemistry and geology of Earth, seen accurately enough by some instruments they must possess that seem sufficiently powerful to examine the fire of our volcanoes by means of a spectrum. "Let us be thankful," he continued, "here at the center of the universe, that science supports us in the belief, so natural to our best feelings, that nowhere else is there intelligent life to share with us our contemplation of the stars; and that the Milky Way, which is especially displayed for our contemplation, is not to be shared with other eyes than ours. We know from this that the destiny of the people of . . ." but at this point the tiresome annotations of Smulker broke in again; and, though nothing of scientific value may have been lost, I have a feeling that by his neglect to commit to paper the rest of that lecture the world has probably lost a valuable peroration, which not only would have adorned anthologies, but which with very slight alteration could have been used to lift and brighten the ends of speeches on many a platform, to the delight of audiences up and down the world.

—Lord Dunsany

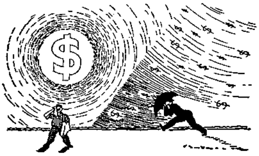
THE DENTIST'S BUSY DAY

Dentists assure me that most teeth are pulled on Mondays. One reason seems to be that people become more vexed with an offending tooth over Sunday, when they have leisure, than they would if occupied with week-day tasks. Having been pestered by a tooth all day Sunday, a person loses no time having it yanked out on Monday.

—Fred C. Kelly

HIGH COST OF WEATHER

IT MUST BE SERIOUS WHEN EVEN CALIFORNIA IS BEGINNING TO DO SOMETHING ABOUT IT



During the past year weather planes have taken off every morning at five o'clock from twenty scattered points throughout the country, regardless of flying conditions, to make records at various levels up to 17,000 feet. The weather today is regularly observed, measured and recorded in more than 35,000 places in different parts of the world. As if this were not enough, an unnamed scientific society recently offered through Sir Hubert Wilkins to spend ten millions establishing twelve outpost observatories in the antarctic to guess world weather farther ahead.

Why all the bother? Weather is costly—not hurricanes or floods or other diabolical acts of God, but just ordinary weather. It is the silent (if somewhat unreliable) partner in every business and the imponderable element in the health of nations.

Take health. Consider the authoritative studies of Professor Ellsworth Huntington. His *Weather and Health* gives the results of an examination of the daily mortality rate in New York City and its relation to temperature and moisture. Professor Huntington studied the record of 220,000 deaths over a period of 2170 days. He found that a temperature of sixty-five degrees was invariably best for all persons over five years of age and that one of fifty-five was best for children. The death rate of children rose as the temperature got above fifty-five. Most startling was his discovery that a drop of even a few degrees in temperature invariably brought a drop in the general death rate on the day it occurred and on the day following. A rise in temperature, on the other hand, caused the death rate to rise on that day and on the second day.

Of each 100 cases of acute appendicitis handled in hospitals, according to Professor C. A. Mills, M.D., of the University of Cincinnati, the fatality rate is almost three times as high in the South as in the North, with a steady lowering as one goes northward from the Gulf region. Of patients dying in the Hamilton County Tuberculosis Sanatorium, Cincinnati, during the past twenty-five years, those born in the North showed "a duration of disease symptoms almost twice as long as did those born in the South."

Ohio-born whites lived on an average of twenty-two months after the onset of symptoms, while those from Alabama, Georgia and the Carolinas succumbed in eleven months. Migrants from West Central Europe survived twenty-two months while those from Mediterranean countries died in eleven. Professor Mills points out that the difference is not due to better hospital or medical handling in the North but that it depends on "a basic difference in the human resistance to infection."

More uncanny are the observations made by Professor William Ferdinand Petersen of the University of Illinois. His theory is that stormy weather has a direct relation to the conception of malformed children. He studied the seasonal birth record of Chicago and found that babies conceived in the turbulent months of March and April showed a number of malformations—twisted spines, cleft palates, club feet; whereas children conceived in calm July, August, and September were nearly perfect. His analysis of draftees in the war showed that stormy Maine and Vermont presented five times as many cleft palates as Arkansas and Arizona. The Southern states have a negligible number of malformation births.

The effects of weather upon business are equally minute though more obviously demonstrated. Even in the Pacific states, where the weather is advertised, there are four million orchard heaters to guard against normal fluctuations of temperature. In one instance fruit to the value of fourteen millions was saved by weather warnings and the use of these heaters. One night in a small Florida district, likewise celebrated for its gentleness of climate, fruit and vegetables saved through a warning amounted to $100,000.

You might not suppose that weather could affect Bibles, but the wrong kind of day can actually stop presses from pouring out copies of the world's magic seller. You have to have the right weather conditions to print Bibles. Bible paper contains a large amount of chalk, which absorbs water greedily: when wet the paper becomes unmanageable. All printers worry about weather if they take pride in their work.

Here is a large stack of sheets in the press room. Rain falls or the humidity rises and the paper starts curling at the edges. Use that paper and it will wrap around the rollers and the press must be stopped. A press capable of 16,000 impressions on a fair day can be so retarded by the misbehavior of weather that it will yield only 1500 on a rainy day. The same mischief is played with illustrations, especially in color. Through quirks in the engraving process, dampness may make cuts spread and print out of register. Most big printing plants in America still gamble on weather, but European plants, notably a new plant near Paris, are air-conditioned throughout so that no part of the intricate process of printing can be sabotaged by weather.

One recent winter New York City spent $7,296,444 removing snow. Because of heat two candy stores in Chicago lost 600 pounds of chocolates last summer. An afternoon storm of only 30 minutes duration costs the people of New York $55,000 through the increased use of electric lights. Light companies keep five extra generators, costing fifteen millions apiece, for coping with the weather. These must be held and serviced for the sole purpose of taking care of peak loads, practically all caused by storms.

The storm for which light companies prepare will add $35,000 in business to a large department store if it comes at the right time of day. Rain after lunch drives crowds off the street and herds them in front of counters. On the other hand, if it is cloudy all day the store may lose as much as $50,000 in sales.

There are tricks of the trade which only weather can play. Recently New York had four days of rain—Monday through Thursday. A little belatedly one store announced a raincoat sale. The advertisement appeared Friday, which dawned without a cloud and remained beautiful; yet a public taught to distrust weather bought every raincoat offered by 4 o'clock that afternoon.

Everyone bows to weather. Forecasts often determine points to which shipments of perishables are made; thus demands and prices may depend upon weather. Advance warning of a cold wave may hold up shipments, and if unfavorable weather promises to continue long, shippers refuse consignments. Bananas, for example, must be kept between 58 and 65 degrees F. en route or wholesale loss results. They generate heat rapidly, so that shipping them in any season requires not only proper refrigeration but also a study of actual and expected temperatures along the way.

When so much is evident, it does not surprise us to find man not merely talking about the weather, but struggling manfully to bring weather under his domination. Mark Twain's dictum may have been true as well as amusing when he uttered it, but man is gradually beginning to *do* something about the weather.

First of all, he has learned to guess it shrewdly. It has been hardly seventy-five years since government forecasting began. First undertaken in England in 1861, it outraged the sensibilities of scientific men. The man responsible, Admiral FitzRoy, was a suicide, partly because of the severe criticisms his forecasts aroused. In spite of all the gab about how often the weather man misses nowadays, the record shows him right between 85 per cent and 90 per cent of the time—human nature, of course, noting only when he fails. Until recently official forecasts have been limited to a day ahead. But the United States Weather Bureau now issues regularly at the end of each week a prediction of the probable weather throughout the United States during the whole following week. In Germany forecasts have been extended to ten days.

To supply the demand for tips on longer futures, various systems have arisen. A theory that has received serious consideration among savants is that of the 23-year cycle, propounded by Dr. Charles G. Abbot of the Smithsonian Institute. He believes that weather repeats itself more reliably than history, but critics point out that the record of the Weather Bureau is unhappily at variance with the theory.

The Tippenhauer Weather Service of New York forecasts for as long as three years in advance. No one seems to be interested that far ahead, but the Service has respectable clients who enjoy six month forecasts: The Consolidated Gas Company; Weber and Heilbroner, clothing merchants; the Metropolitan Golf Association with 150 affiliated clubs. Others pay for forecasts a month ahead, including the North German Lloyd line, and for some odd reason, the University Club.

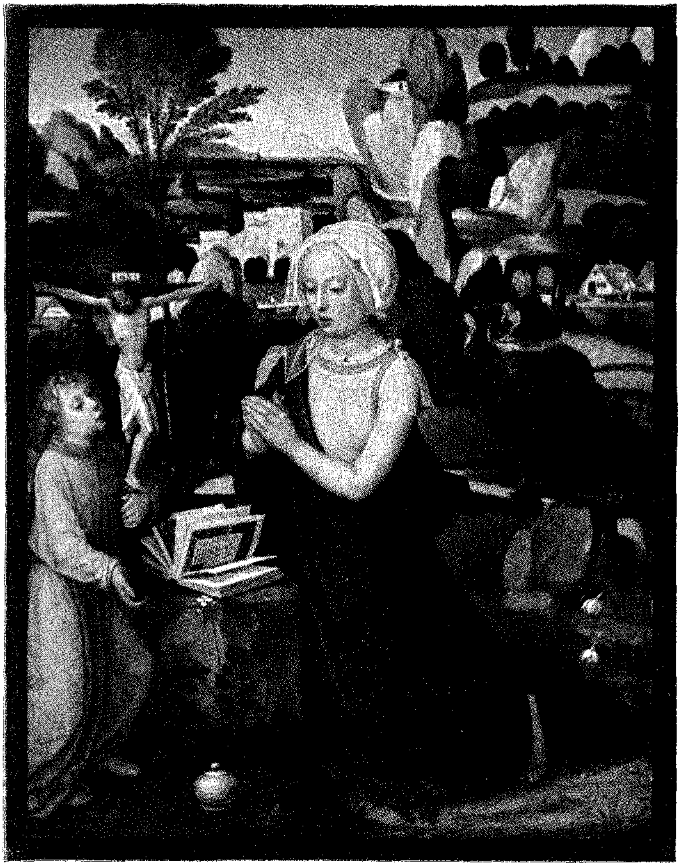
Tippenhauer predictions, made for the metropolitan area, claim to average 85 per cent accuracy. These predictions, even for three years in advance, are made for every single day. Some concerns swear by the Tippenhauers, whose predictions are made on data outside the pale of science.

One large shipping company uses the service in taking grain shipment options. If a boat is to remain in port three days and has an opportunity for a load of grain, and one of these days, according to Tippenhauer, is to be wet, an alternate day is chosen for the loading of the grain.

Guessing is not man's only ruse to circumvent weather. Everything is being tried, from praying to spraying of electrified sand from airplanes in an effort to create rain. The possibility of piping refrigeration from the arctic has been discussed. There is also the more remote chance of tapping ocean currents, of tuning in and dialing the kind of weather you want.

Sensational is the prospect of air-conditioning on a large scale out-of-doors. There is already in existence in Whittier, California, an electrodome 130 feet high. It is designed to dispel ground fog and prevent frost "by electrically driving atmospheric moisture into high cloud areas with negative discharges." With an effective radius of three miles, some experts believe that the feat it performs may set the pace for the future, that air-conditioning is not necessarily an indoor sport.

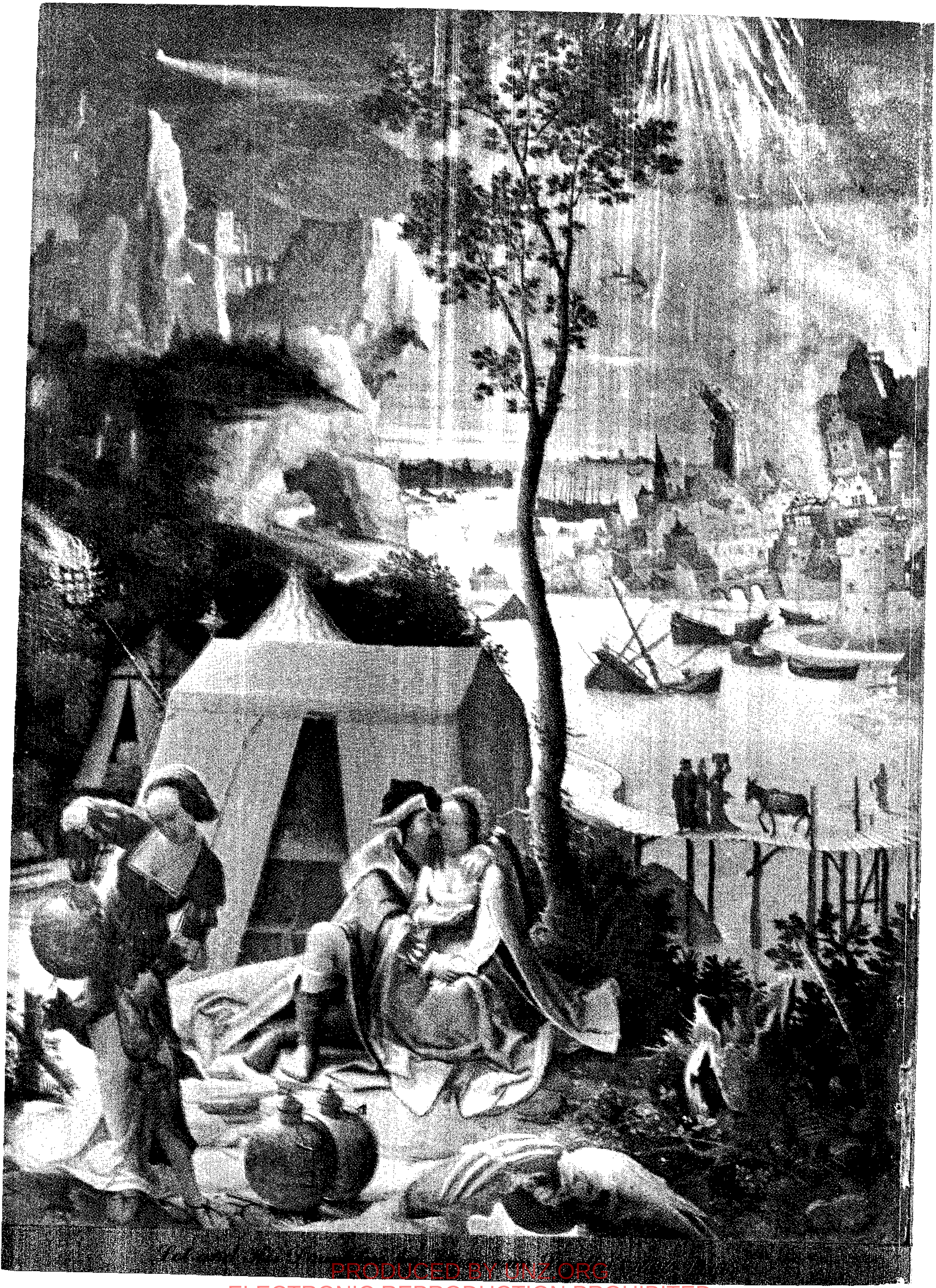
Other special devices are in the making. A fog dissipating machine, fashioned by Henry S. Houghton, Jr., of Massachusetts Institute of Technology, shoots chemicals from 1550 nozzles and condenses fog so ably that 2000 feet of air can be cleared—a space wide and long enough for a plane to land. These ruses and devices may hold the key to the future. —HILTON GREGORY

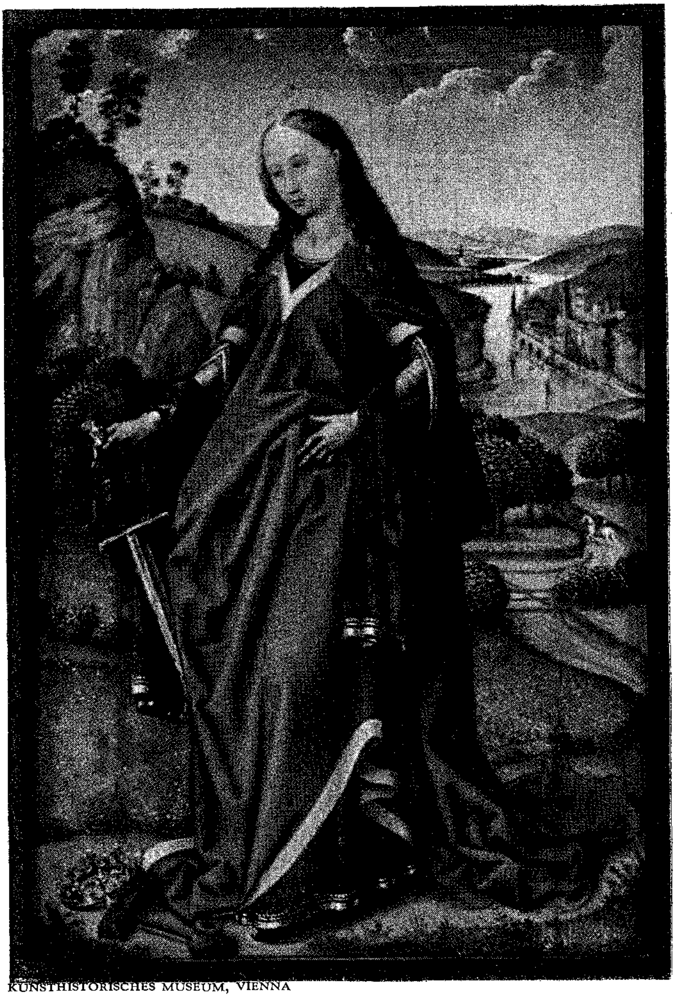


NATIONAL GALLERY, LONDON

ST. MARY MAGDALENE BY YSENBRANDT

Little is known of Adrian Ysenbrandt, other than that he settled in Bruges in 1510. But he, along with the painters whose work is represented on the three following pages, was one of the Renaissance artists who first broke with the dead scholasticism of the Middle Ages.

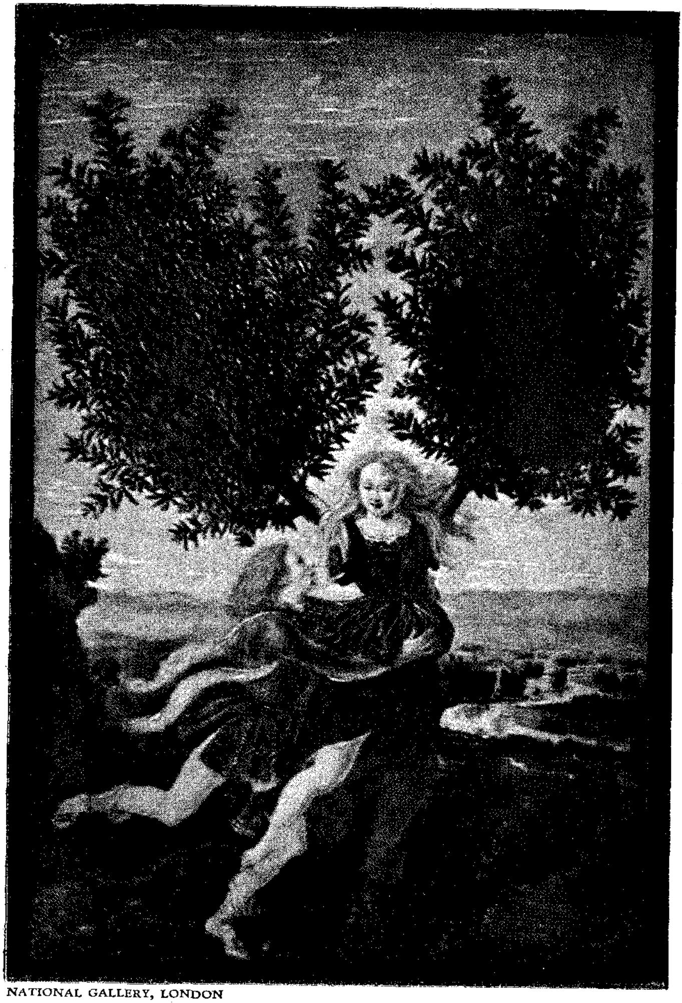




KUNSTHISTORISCHES MUSEUM, VIENNA

ST. CATHERINE BY VAN DER WEYDEN

Roger van der Weyden (*c.*1400-1464) was foremost among the followers of the brothers Van Eyck to enlarge the scope of Renaissance art. In many respects the inferior of Jan van Eyck, he surpassed him in realistic faithfulness of representation and minuteness of delineation.



NATIONAL GALLERY, LONDON

APOLLO AND DAPHNE BY POLLAIUOLO

Antonio Pollaiuolo (1432-1498) was reputed to be the first artist to study anatomy on the dissecting table. Understanding bodily structure far better than any of his predecessors, he depicted, with superb draughtsmanship, figures in action and the full play of muscles.

NEVER, NEVER LAND

SO FAR, SCIENCE HAS MADE A LIAR OF ITSELF EVERY TIME IT SAID "NEVER"

EDWARD E. SLOSSON used to say that when a new idea is proposed to the world it starts with a handicap of about one billion eight hundred million adverse votes.

Nor are the croakers of "impossibles" only the self-seekers, who fear that their private interests may be imperiled by change, and the uninformed, whose natural inertia is fortified by ignorance. Always the clamor is reinforced by the expert opinion of some authority on the subject who learnedly declares it can't be done. On occasions he will cite arithmetic, algebra, geometry, and even metaphysics to prove that the result aimed for is inherently unattainable.

It is surprising to find how many eminent men of science, distinguished discoverers and inventors, men of open minds and far vision, have put themselves on record in some stultifying expression of pessimism.

Even Edison was not free of this myopia. In 1906, when wireless telegraphy was operating in a feeble way, he was asked, "What is the outlook for wireless telephony?" The great innovator answered, "It does not exist." A few months later some wireless operators on ships off New York were astonished to hear voices and music in their earphones in place of the usual rasp of dots and dashes. Lee DeForest had attained his first radio telephone, and was testing it by a broadcast of a phonograph record—perhaps even a record of Mr. Edison's manufacture.

Equally eminent authorities voted against the airplane.

Lord Kelvin, whose adventurous science made the transatlantic cable a reality after several practical men had botched the job, was quite certain that a flying machine was a physical impossibility. He proved it to his own satisfaction by the laws of physics.

Kelvin's pronouncement was seconded in America by the eminent mathematician, Simon Newcomb, chief astronomer at the Naval Observatory. Just as ostriches and other birds above a certain weight do not fly, so machines above a certain avoirdupois would be incapable of lifting themselves in sustained flight. Newcomb suggested that if successful airplanes were attained they must of necessity be small lightweight mechanisms like watches. "If the watchmaker can make a machine which will fly through the room with a button, then by combining ten thousand such machines he may be able to carry a man," ventured Professor Newcomb, on the same principle that "a sufficient number of humming-birds, if we could combine their forces, would carry an aerial excursion party through the air."

Since these authorities failed so widely in their estimates of what could be managed within the law of nature, we need not take too seriously the shrugs with which some present-day authorities react to the mention of other human dreams.

There is very much alive today, for example, the dream of interplanetary flight. It is not new, to be sure, but is one of man's oldest anticipations, as the Greek legends of Daedalus and Icarus show. The problems involved are beyond those of aeronautics, just as the problems of telephony were beyond those of telegraphy—but the lessons of successful aerial flight are giving pointers and hints and warnings and guides to a future technique of space navigation which the specialists have named "astronautics."

Astronautics has its laboratories, usually isolated fields where open-air experiments may be performed without attracting onlookers or endangering the lives of outsiders. It has its technical journals, its technical societies, student clubs, and ardent amateurs, both participants and backers. One of these enthusiasts, a wealthy citizen of Cleveland, Ohio, has created a trust fund of $20,000 to provide for the burial of himself and wife on the Moon, in the event that they die before the first astronautic passenger service starts.

A space ship cannot be just an enlarged airplane, or a multiplication of planes—on the analogue of Professor Newcomb's harnessed flock of humming-birds. Since it must leave the atmosphere and navigate the vacuum of interplanetary space, it cannot depend on propeller, rudder, and other air-minded devices, but must substitute some entirely different principle of propulsion and steering. When I mentioned the rocket to a professor of aeronautics seven years ago, he laughed outright. "Are you asking me to discuss the rocket as a practical power device?"

Why not? The steam engine, the dynamo, and the gasoline motor were feeble toys once. Each had to advance from infantile beginnings through step after step of experiment and improvement before the present efficient types were attained. Rocket research is occupying the time of a few pioneering physicists today, and the engineering is advanced beyond that of 1930. In another seven years we may look for courses in rocket engineering in some of the more progressive schools. I believe the Yale Rocket Club is the first college group to attain the rank of an affiliate of the American Rocket Society, but others are on the horizon.

The problem of developing the rocket into a dependable motor for space flight involves not only (1) questions of design, to obtain the most efficient discharge of the burning gases whose reaction propels the rocket and its cargo, but also (2) questions of materials, to obtain metals that are both light and strong and able to endure the intense heat of the combustion, and (3) questions of fuels.

The third of these items seems the most formidable. Much recent rocket research has been concerned with the use of liquid oxygen in connection with gasoline or alcohol. But each mixture has disadvantages, and perhaps the problem will not be solved until some entirely new fuel is obtained —something that is able to release a maximum of energy from a minimum weight of material, and to release it under the control of man. This question of compactness of energy storage is obviously of the utmost importance to astronautics. A ship that casts off from the Earth bound for the Moon or Venus must carry sufficient fuel for the round trip. If the only fuel available is such combustibles as gasoline or alcohol mixed with liquid oxygen, the tonnage of fuel weight offers an enormous handicap.

Even when the oxygen is delivered to the gasoline or other combustible in concentrated liquid form, as in the rocket experiments, the energy released as a result of the burning is only an infinitesimal fraction of the energy resident in these liquids. Scientists call this resident energy atomic energy. This is the energy locked up in the balanced systems of atomic structures, the energy of matter itself, compared with which the chemical energy of combustion is quite trivial.

To picture the difference between atomic energy and ordinary chemical or heat energy, let us consider the possibilities of a pound of gasoline. Gasoline varies somewhat in weight, but in general a pound is about a fifth of a gallon. If we use our pound of gasoline in the best internal combustion engine of today, we get considerable rearrangements of its atoms in the form of the discharge gases and derive as a by-product of these chemical rearrangements about one kilowatt-hour of energy. But if, instead of merely exploding the gasoline we were able to convert the mass of all its atoms into energy, so that there would be no exhaust gases, no material residue or waste of any kind, but complete transformation of matter into energy, calculation shows that the yield from the one pound of gasoline would be 11,300,000,000 kilowatt-hours.

There can be no more compact storage than this arrangement of atomic energy. If our power requirements were 1000 kilowatts per hour continuously, or 24,000 a day, our one pound of material would provide fuel sufficient for more than 1200 years. Nor is it only gasoline that packs this tremendous load of energy. A pound of air, a pound of water, a pound of sand, everything, contains the same.

If we find a way to release and control only a small percentage of this resource, all present practices of power production will immediately become obsolete. Each household, each individual, each machine, will have an inexhaustible source of energy always at hand, and central generating plants and transmission lines will be rendered superfluous.

Having introduced the highly futuristic subject of atomic energy, I must add the caution of certain eminent authorities. There are those today who say that this dream is completely wild, who point out that more energy is required to smash atoms than is released from the relatively few that get smashed, and that therefore hope of atomic energy as an economic source of power is futile, never to be attained.

Can a scientist afford to use the word "never" in a serious sense? I doubt it. Remembering what happened to the forecasts of Newcomb, Kelvin, and Edison in the cases cited, and to other pessimistic prognostications of learned experts of earlier generations, seeing how adaptable is nature, and marking what the ingenious techniques of man have accomplished within her iron law, I object to the recognition of any "never, never land" of science.

As George R. Harrison has said, "Just because a man is an authority on the universe is no reason why he should speak with authority on eternity."

There was a time, not many decades ago, when the transmutation of metals was listed as one of "the seven follies of science." Today it is a commonplace. There is hardly an element that has not been transformed by the modern alchemist's art into something else. Our problem of the release of atomic energy is related directly to the practice of transmutation, and so it seems rational to say that whatever increases the yield of transmutations increases the probability of attaining successful release of atomic energy. Since 1932 the technique of transmutations has multiplied its efficiency by a factor of at least a million. There is still a long road to travel—but surely we are on our way.

It is quite possible, of course, that the rocket motor may be empowered successfully by some other form of fuel before the release of atomic energy on a commercial scale is attained. Or it may be that some other means of navigating space will be hit upon before the rocket is perfected.

The important rule to remember is that science predominantly is positive, progressive, affirmative—and that a negative attitude has been so often discredited in the history of its various techniques that negativism is no longer to be taken seriously. The conquest of matter, the conquest of space, the conquest of aging, even the conquest of death—who would dare write "never" to a one of these dreams? The least difficult may require the efforts of generations of experimenters yet unborn, but nature must yield if man perseveres. —GEORGE W. GRAY

SPREAD OF WILD-FIRE

WEIRDLY AND WITH AN OVERTONE OF MAGIC THE NEWS OF GUNPOWDER SPREAD THROUGH THE WORLD

IT WAS the Chinese that started the whole story.

Somebody who had journeyed all the way from the shores of the Mediterranean had presented the Khan with one of the secrets of warfare of the nations of the West. It was the secret that later became known under the name of Greek Fire, a mixture of four or five inflammable ingredients of resinous nature. The Chinese had even been taught how to use it. Wrapped to a small bundle it was fastened to an arrow near its head, ignited and shot against the wooden fortifications of the enemy or into the rigging of his vessels.

The Chinese smiled in a dignified manner, bowed their heads, used the knowledge and made entries to that effect in their chronicles, politely omitting the name of their teacher.

At the same time Greek savants sat under lofty pillars in the balmy air of Mediterranean spring and pondered similar problems. Nothing is too small to escape the attention of the really wise, nothing happens that is without deeper significance. When the slaves spilled precious salt in the cooking fire the flames of this fire brightened and shone yellow. Evidently, it was thought, the fire became hotter when fed with precious salt. Therefore salt was added to the mixture of the war fire in order to make it hotter and more highly destructive.

Every student of chemistry of today would sneeze at such an assumption. Of course salt brightens a flame, it is the sodium it contains that works that way. But a brighter flame is not necessarily hotter and a "salted" flame certainly is not.

But the ancient Greeks did not care for objective measurements. They salted their incendiary mixtures and kept it a strict secret. And because it was a secret, very soon yellow skinned dignitaries smilingly acknowledged the use of salt in war fires and bowed their heads and tried to duplicate the feat. Then disappointment came. Tried patiently and thoroughly, the new mixture did not yield better results than the old one. Something must be wrong. Perhaps the interpreter could not interpret in an orderly fashion—one would have to look more closely into that matter later—or the strangers did not know the secret very exactly. But most probable it was another salt that made the flame destructive.

Thus they tried everything they knew that might be called "salt" because of its appearance. One of the "salts" tried was saltpetre that liberates oxygen when heated and thus quickens combustion to the point of actual explosion. It was the ingredient the Chinese scientists had been looking for, the salt that made combustion destructive.

It so happened that they not only invented gunpowder during this procedure of trial and error but also what were called later Roman Candles and sky rockets. Poetic names were readily furnished by the flowery Chinese language. The rockets were *Fa-ee-ho-tsiang* (Arrows of Flying Fire), bombs were called *Tchin-tien-lui* (Heaven-Shaking Thunder) and the Roman Candles were the *To-lo-tsiang* (Lances of Storming Fire). And all these new weapons were used effectively for the first time when the Mongols attacked the city of Kai-Fung-Foo in 1232 A.D. The weapons were new then, they proved far more destructive morally than actually. And ambassadors of other nations were very anxious to learn more of this black magic.

It took them a surprisingly short time to learn.

Eight years after that battle of Kai-Fung-Foo, say twenty years after the actual invention, the Arab Abu Mohammad Abdallah Ben Ahmad, called Ibn Albaithar (the Son of the Horse Doctor) knows about saltpetre. And again forty years later, around 1280 A.D., the hunchback Hassan Alrammah, called Nedshm Eddin (Star of Faith) discloses everything known about bombs, rockets, powder, saltpetre and Roman Candles and even describes a rocket-driven torpedo. Hassan calls the rockets *alsichem alkhatai*, meaning "Chinese arrows," a term that shows where the Arab knowledge came from.

When the old incendiary mixtures returned from the Far East changed to gunpowder, the original weapon was still in use and for a while each competed with the other. While there was no sharp distinction around the Mediterranean, the nations farther up in the North soon accepted different names. The main application of gunpowder in those early days was the manufacture of sky rockets. *Ignis volans* is the Latin term that was most frequently used to describe them, translated "flying fire." But the Germanic languages had a term of their own, "wild fire" the Germans called them. The British did the same, as a passage in *Richard Coeur-de-Lion* shows:

"Kyng Richard, oute of hys galye
Caste wylde-fyr into the skye
And fyr Gregeys into the see."

There is one thing that is especially surprising if one tries to trace the early history of gunpowder. It is the remarkable speed of communication.

Thinking of the beginning of the thirteenth century, we always assume that people lived all their lives only a few hundred miles distant from each other without ever hearing much of these "distant" neighbors.

The early history of gunpowder shows that, at least in this particular case, communication functioned quickly and reasonably precisely. The secret of saltpetre needed only eight years to travel from the Far East to the Mahometan West. Only a few years later the famous and in many respects somewhat mysterious *Liber Ignium* (Fire Book) was written by somebody who called himself Marcus Graecus, Marcus the Greek, but who was most probably a Spaniard. Marcus' book was the source for the first two mentions of gunpowder in Europe—those of Roger Bacon in England and Albertus Magnus in Germany.

Although the knowledge of the new explosive mixture that burned even under water seems to have been fairly widespread, it appears that it was somewhat dangerous to possess this knowledge. It looked too much like magic in a superstitious age, and a powder maker who happened to attract other unwelcome attention too was likely to be treated as a sorcerer.

Roger Bacon, called with awe by his contemporaries *doctor mirabilis*, experienced much of this fate. Finally he felt obliged to defend himself against the accusation of Black Magic and wrote his most famous and most frequently quoted *Epistola* (letter) to his superiors. It did not help him very much, for eventually (in 1257) his lectures were prohibited.

It is possible that his *Epistola* might have resulted in fewer accusations if Roger had not written a few chapters in a most unusual and mysterious manner. While the first eight chapters are written in absolutely clear and readable Latin, the chapters IX—XI "read like so much nonsense," as Oscar Guttman, the great English historian of gunpowder put it. Roger introduced these three chapters with the remark that he had to resort to a cryptic method *propter secretorum magnitudinem* (on account of the magnitude of the secrets) and used what is called the "Argyle Cipher." This cipher consists of a clever way of hiding the senseful sentences under a litter of high-sounding phrases and words that have no real meaning at all, excepting to confuse the reader.

Allegedly Roger discussed the usual topics of mediaeval alchemy, the making of gold, the Elixir of Life and the Philosopher's Stone. Actually he described saltpetre and the making of gunpowder. Although the Argyle Cipher lures the reader away from the real topic of the letter, Roger still felt that the secret was not guarded sufficiently and put the most important sentence—the one that related the proportions of the explosive mixture—in the form of an anagram which successfully withstood translation for almost 700 years!

Nobody, however, mentions the

most important application of gunpowder: the gun. The Chinese chronicles, Hassan Alrammah, Marcus Graecus, Roger Bacon and Albertus Magnus, in short everybody who wrote about gunpowder between 1200 and 1280 is ignorant of firearms. Rockets are mentioned, fire-arrows, Roman Candles and bombs, but no gun.

Real firearms—it might be well to remember the technical definition of firearms which reads: a firearm is a weapon that throws solid bullets by means of exploding gunpowder—seemingly appeared with amazing suddenness in the fourteen n century. As long as the historical data were not very well-known, historians received the impression that around the years 1390—1400 suddenly everybody possessed muskets and cannons, while before that time nobody had ever heard of them. Reports of firearms before that period were generally doubted and historians battled for many years about the true meaning of certain passages in the descriptions of the battle of Crécy which took place in 1346. While one party claimed that simple guns and muskets were used effectively in this battle, another party of historians maintained that it was only a heavy thunderstorm that happened to discharge its accumulated electricity during the battle and influenced its outcome. As long as there was nothing but the battle of Crécy to go by, the question remained open whether firearms existed in 1346.

But slowly convincing evidence that firearms did exist this early was discovered. In 1347 Master Hugonino di Chatillon made four bronze cannons for the Marquise di Monferrato. During the years 1344—1347 the Chamber of King Edward III of England paid several bills for "gonnes" and for "tronckes" of powder. And in 1342 the city of Cambray paid a bill for ten cannons, five of iron and five of "metal," probably bronze.

It was a big event when an Oxford manuscript of 1326, entitled *De Officiis Regum* was discovered. This old and beautiful manuscript not only speaks about a gun but even gives a colored miniature painting of the firing of one, which was accomplished by touching the powder charge with a bar of red hot iron.

There is only one still older source, the chronicle of the city of Ghent, the so-called "memorie boek." Among the entries of the year 1313 there is a passage which reads in translation: "By the way, in this year the use of the bussen was found for the first time by a monk in Germany." The word "bussen" has the unmistakable meaning of "rifles," or in general "portable guns."

This entry refers to this mysterious German monk several times. It has been suggested that the monk may be Albertus Magnus, but in this case the writer of the chronicle certainly would not have omitted the name. The "monk" must be one called Berthold.

This monk Berthold is the strangest

of all the strange characters one encounters in the early history of gunpowder. For three and a half centuries his existence was firmly believed, then doubts began to form and for another century the monk Berthold was simply denied. Eventually he was introduced into history again. But he is still a hazy historical character, meaning that there is no reliable contemporary source known where he is mentioned as an actual living person.

On the other hand, the history of gunpowder shows a wide gap when Berthold is omitted. This history needs somebody who invented firearms. Since there is no other claim for this honor and since legend ascribes the invention of firearms to Berthold, it has been agreed—especially since there is much circumstantial evidence that firearms were first known in the vicinity of the monastery said to be Berthold's—to acknowledge his existence and to give him credit for the invention of the gun. It is very probable that the "memorie boek" of Ghent dates the invention correctly, because there is only gunpowder, but no guns, known before 1300 while the oldest known picture of a gun belongs to the year of 1326. During the fourteenth century the new art became gradually known and was common knowledge at the close of the end of the same century.

Thus far the story of gunpowder and its development is accurate history.

It is interesting to speculate about this man Berthold who must have lived around the year 1300, probably even a little earlier. The legend says that he was an alchemist. All the various versions of the legend agree fully in this respect, and the oldest of them say explicitly that Berthold made his discovery while trying to make gold. Another version asserts that he was killed by an explosion in the course of his experiments, another claims that he was executed as a punishment for his "devilish invention."

While the legend claims that alchemistic dabbling with chemicals led to the discovery of gunpowder—without making the slightest hint that it was already known at the time when Berthold is said to have lived—historians have tried to argue that Berthold simply tried to make the new and mysterious mixture described by others. While Roger Bacon's *Epistola* in all probability was not known to him, he might very well have been acquainted with the one book of Albertus Magnus that mentions gunpowder. He might even have known Marcus Graecus' "Fire Book." He might even have met Albertus Magnus in person, since Albert made numerous journeys of inspection to the various monasteries in Germany.

All this is possible.

But it is equally possible that Berthold did not know any of these sources. Possibly, even probably, Berthold actually invented—it might be more precise to say: discovered—

gunpowder exactly as the legend tells it.

He is said to have tried a mixture of saltpetre, sulphur lead, oil and mercury in a tightly sealed copper mortar which was destroyed when the mixture was heated. This must have been very disappointing; it is not a pleasant surprise to get an explosion instead of the gold expected. And the surprise must have been especially unpleasant and frightening since explosions were practically unknown, so that the result might have easily been worked by an evil spirit.

To us it is more surprising that Berthold expected gold to result from the heating of such an odd mixture as oil and mercury with sulphur and saltpetre added to it. If anything, we would expect an explosion. The difference in expectations is nothing but the difference between alchemy and chemistry. These old alchemists had their theories, but the theories were not yet based on the results of often repeated experiments. These theories were purely philosophical.

The interest of the alchemists centered around mercury, which was to them a substance with magic meanings and qualities. That this heavy fluid was simply a metal with extremely low melting point did not occur to them. It was the mysterious beginning of all matter, the *prima materia* itself. Anything could be made of it, "if you know the art." The thought prevailed that its liquid state was the result of a spirit, a "basilisk" living in mercury. If this "basilisk" could be killed and at least forced to leave the mercury, it would solidify, possibly into the Philosopher's Stone, more probably simply into silver, which was precious enough.

But if it were possible to dye mercury yellow just in the moment it solidified, the result would be gold. Yellow sulphur was expected to change the color of the metal and the metal itself.

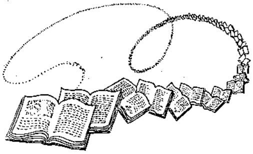
Then there was another theory of the alchemists. It said that no reaction could be expected unless at least one of the chemicals was a liquid. Since mercury did not count as a liquid—in addition to this it was expected to solidify—a liquid had to be added to the mixture and Berthold chose oil. We may now reason that he had tried the experiment over and over again, getting neither gold nor silver but just a dirty mess. Certainly something was still lacking. Thus he tried one substance after the other until one day saltpetre was added to the mixture. And the unexpected explosion that shot the heavy cover of the mortar to the ceiling and broke the container to pieces was the beginning of Berthold's discovery of gunpowder which was already known.

Evidently these explosions originated the first firearms, which became the most frequent and most important application of the explosive mixture from China, the secret of which had been introduced to the countries of the West by faithful Moslems.

—Willy Ley

MOUSETRAP AND SAGE

HUBBARD LED BOLDLY WITH HIS BIG BASS DRUM AND PERSONALLY SPONSORED THE RENAISSANCE



"In all this Cuban business there is one man who stands out on the horizon of my memory like Mars at Perihelion."

The above is a quotation that should find its way into the intelligence tests so popular in periodicals and parlors today. For thirty-eight years ago that paragraph and the romanticized episode that followed were as well known as perhaps any piece of journalism has ever been in this country. It first appeared as an uncaptioned paragraph in the March, 1899 issue of a pocket-size magazine called *The Philistine* published at East Aurora, New York. Shortly after publication orders began to pour in for copies of this editorial. Probably few of its readers knew much about "Mars at Perihelion" but the breezy informality of the style had caught on. Since that date more than a half-million copies of this editorial, now officially known as an "essay," have been printed and distributed.

The author of the piece skyrocketed to national fame. He became the Bruce Barton and Walter B. Pitkin of his time, continuing to popularize the lives of great men, the foibles of small men and the sanctity of business. In a small way he was the H. L. Mencken of his day, although without the latter's learning and predilection for prophecy. His name was Elbert Hubbard and the excerpt given above is from his *Message to Garcia*. For years business men circulated his Message among their employes to offset teachings they considered subversive. Children read it in school and learned at length the story of the man Rowan who did not ask who was Garcia, where was Garcia, but went down to the wilds of Cuba and found Garcia. The gentle paternalism conveyed in the rest of the Message is hardly popular today.

However, Elbert Hubbard himself was by any estimate an unusual individual. That in later life he became convinced of his own genius is evident from his writings, and it is true that a cult of considerable proportions hailed everything the master wrote and said, but he did have definite influence on business and the American culture of the nineties and the pre-war twentieth century. He preached the Gospel of

Business, the Ideals of Service and, in a sense, was a self-appointed public relations counsel for the Great.

Hubbard was the son of a country doctor. He was born on June 19, 1856 in Bloomington, Illinois and was named Elbert Green; the middle name he dropped when he tasted the first bittersweet fruits of authorship. When he was sixteen he left the farming community in which he had been raised and went to Chicago. By his own account he became a free-lance writer for the newspapers. Later he worked for the sales and advertising department of a manufacturing concern in Buffalo.

Friendly biographers claim that at various times he was cowpuncher, lumberjack, printer, schoolteacher and actor before he entered the soap business. He made a considerable fortune in soap and when he was thirty-six years old decided to retire. His resources, after he sold his interests, amounted to about $60,000, certainly no more than $75,000. He was married and had responsibilities when for some reason, variously eulogized later on, he decided to quit and enjoy himself.

Perhaps he took seriously Whitman's invitation to "loaf and invite my soul." But he had definite ambitions. In the farming community about Bloomington there had been little opportunity for schooling. Now he decided to get the higher education that he fancied he lacked. So he entered Harvard University. But he soon realized that at thirty-six he was too mature for the ways of the undergraduates. This was not his way of loafing and inviting his soul. He did not stay long at Harvard.

Next to education he reasoned that he needed travel. Few men of his years and with his relatively limited means could have dared to take any of the steps he took. Hubbard now went on a bicycle tour of England, eager to see, eager to learn. In Hammersmith he visited the Kelmscott Press, run by William Morris, artist and craftsman, semi-medievalist and scholar. Here the American soapmaker discovered for himself the renaissance of learning. Morris was at work on the great Kelmscott edition of Chaucer. Hubbard looked at the type and the presses and the paper and was entranced. Here he saw good, honest work being done largely for the joy of doing. William Morris felt that he was, in a small way, contributing fine things to an age that had learned to appreciate only the cheap and uniformly made. Hubbard was seized with an idea that with his business training and with his knowledge of advertising and public presentation he could make the American public accept similar products.

When he returned to America he brought with him not only the inspiration but also the name for his project: *The Roycrofters*, after the sixteenth century English printers, Thomas and Samuel Roycroft. The name in modern English simply means

"King's craft" or "King's craftsman."

In 1895 he was champing at the bit and in that year founded his Roycroft Press in East Aurora. In June he published the first number of *The Philistine*. He christened his periodical *The Philistine* in deliberate defiance of the accepted meaning of the word, which is given as "an ignorant narrow-minded person, devoid of culture and indifferent to art."

Such terms as *phalanstery* and *bursar* and *fra* were introduced at Roycroft. Hubbard was not a snob, he was merely having a good time and the Roycroft Press was his plaything. He believed fondly that people were only waiting for the "different" thing and he tried to give it to them. In January of the year he founded *The Philistine* he began to issue his *Little Journeys to the Homes of the Great*.

He was getting an education by reading for himself. He was so impressed with what he learned that he wanted to give expression to his reactions. His press afforded an ideal medium, so Hubbard became a pamphleteer. His *Little Journeys to the Homes of the Great* Artists, Authors, Women, Teachers, Painters, Musicians, Orators, Philosophers, Scientists were never merely factual biographies. He firmly believed that the public at large knew little or nothing of the contributions the great minds of the past had made. He was an exuberant spirit himself and he poured out the biographical facts with a brimming measure of breezy reflections on life and humanity as they appeared to him.

Somewhere at this time he discovered the value of the "personal touch" on his literature. Henceforth everything he issued would have a special edition "limited and signed by the author." Long before a rising book market made the possession of writers' autographs as desirable as their works Hubbard had sown his autograph to the winds. He was fond of editions on handmade paper, although he never veered from the solid black page typography, and issued pamphlets and books in limp suede with moire silk lining and silk ribbon markers. Later there were books on vellum, with hand-painted initials and designs, bound in morocco and in crushed levant.

The Philistine was an innovation. But it caught on. Hubbard began to write for larger audiences. The monthly messages he had been composing chiefly to let off steam became part of A Message. Hubbard became big-time.

In January, 1899 with issue No. 45 off the press, he announced he would thereafter write everything in the magazine himself, including the ads and testimonials. His circulation increased steadily. The last issue before his death in 1915 had a paid circulation of 225,000.

Those last fifteen years Hubbard became a Personality, went upon the platform and lectured throughout the country. He even invaded the vaudeville stage. He affected a wide-brimmed soft hat, a Buster Brown haircut and a flowing tie, that challenged attention, although it must be said to his credit that he dressed this way before he became a prominent figure.

It was his personality that was probably responsible for the little community that grew up about the Roycroft Press. The project had a semi-communal air about it but Hubbard was definitely the employer. There were an inn and workshops and various other buildings. The *Fra* invited conventions to come to East Aurora and make use of his accommodations. The host loved to ride and encouraged his guests to join him in recreation on horseback or in the garden. He had a faculty for making friends. William Marion Reedy, Clarence Darrow, Richard LeGallienne, Henry Ford, Judge Gary and others were in the circle. Whether they used his name is not clear. It is certain he used theirs, for they were part of the contemporary Great Names and he sought them out in the present as avidly as he did in the past. "Blessed is that man who has found his work," he paraphrased. He had found his. "Do unto others as though you were the others," was another paraphrase. "The mintage of wisdom is to know that Rest is Rust and that True Happiness lies in Love, Laughter and Work," was another of his favorite "epigrams."

His *Message to Garcia* was good industrial propaganda and for that reason the railroads and big corporations purchased it in large editions.

He probably had no clear philosophy. He wrote a facile style and had a clever hand at turning phrases. He drew on Renan, Shaw, Ruskin, Wilde and Whistler among his contemporaries and on all the great of the past. He must have been a voracious reader. As he became better known he was inclined to become more superficial in his judgments, although he did not lack for courage. The fact that he early retired from business to enjoy his profits shows his independence of mind. Divorced by his wife in 1903 he married Alice Moore, who was also a writer, and carried on a great campaign against what he considered the shams and artificialities of modern living. He became more self-righteous in tone and adamant as he grew older.

He enjoyed quarrels in print. The outbreak of the World War found him campaigning zealously against the Kaiser. In May, 1915 he sailed on the *Lusitania* with his wife. That was the fatal trip when the liner was torpedoed in the Irish Sea and sunk by a German submarine. Both he and Mrs. Hubbard were lost.

Perhaps the most savage satire ever done on Hubbard was that of Bert Leston Taylor, the famous columnist of the Chicago *Tribune*, who published two numbers of a little magazine, startlingly like *The Philistine*, but which Taylor called *The Bilioustine*. In typography and butcher-paper covers it was the image of its prototype. It, too, called for an Academy of Immortals, a semi-humorous project of Hubbard's, the initiation fee to which paid for a life subscription to *The Philistine* and various Roycroft publications. "B. L. T." characterized the Hubbard-Roycroft fad in one mock epigram: "Art is long—so is hair."

So solidly was Hubbard's own evaluation of his genius implanted in his followers that his son, taking over the Roycroft properties as Elbert Hubbard II, declared sadly, "Genius always skips a generation," and looked fondly toward his own son.

Ingersoll Watch, Wrigley's Chewing Gum, Heinz' Fifty-seven, Holeproof Hosiery, Gillette Safety Razors, Prophylactic Toothpaste, Van Camp's Beans—these were only a few of the national advertisers for whom Elbert Hubbard wrote copy. And the anonymity of the author in advertising must have made a great impression on him.

Stephen Crane once hoed potatoes in the Roycroft patch. The poems he wrote Hubbard paternally accepted for *The Philistine;* on one or two of the Crane poems he neglected to add the poet's name. Crane went on to win fame with *The Open Boat* and *The Red Badge of Courage* but Hubbard's habit of absorbing and forgetting to credit persisted. Not that he willingly plagiarized—he would probably have said that he regurgitated. Nevertheless the habit of running unsigned epigrams and verses from other writers was sometimes embarrassing. In *The Philistine* he even repeated a stanza from Henley's *Invictus* and failed to give proper credit. A careless anthologist later reprinted the famous lines from the periodical and credited them to Hubbard!

Probably the best-known quotation that Hubbard adopted was the formula for success which runs variously as: "If you can write a better book, or preach a better sermon, or make a better mousetrap, the world will beat a path to your door." Troubled students questioned the authorship, insisting it came from Emerson. Hubbard's assistant declared, "Elbert Hubbard evolved that Emersonian dictum from the depths of his own cosmic consciousness."

When pressed, Mr. Hubbard later admitted that he might have lifted it from Emerson, but that the debt was offset by the things which he attributed to Emerson that Emerson never wrote!

Nevertheless, in his own day Elbert Hubbard's cosmic consciousness was a profitable one and a source of some inspiration to many people. Under his son the Roycrofters still continue at East Aurora, selling by mail, limp-leather books, bookends, and pails of maple syrup. The *Scrapbook* and *Notebook of Elbert Hubbard* can still be found in many parlors. But Hubbard's work is generally not so well known today. Apparently having beaten a path to his door the world found it didn't want a mousetrap after all.

—Louis Zara

ABOUT JEAN-LOUIS FORAIN

WHO PROVED THAT A LINE IS THE SHORTEST DISTANCE BETWEEN AN ARTIST AND HIS POINT

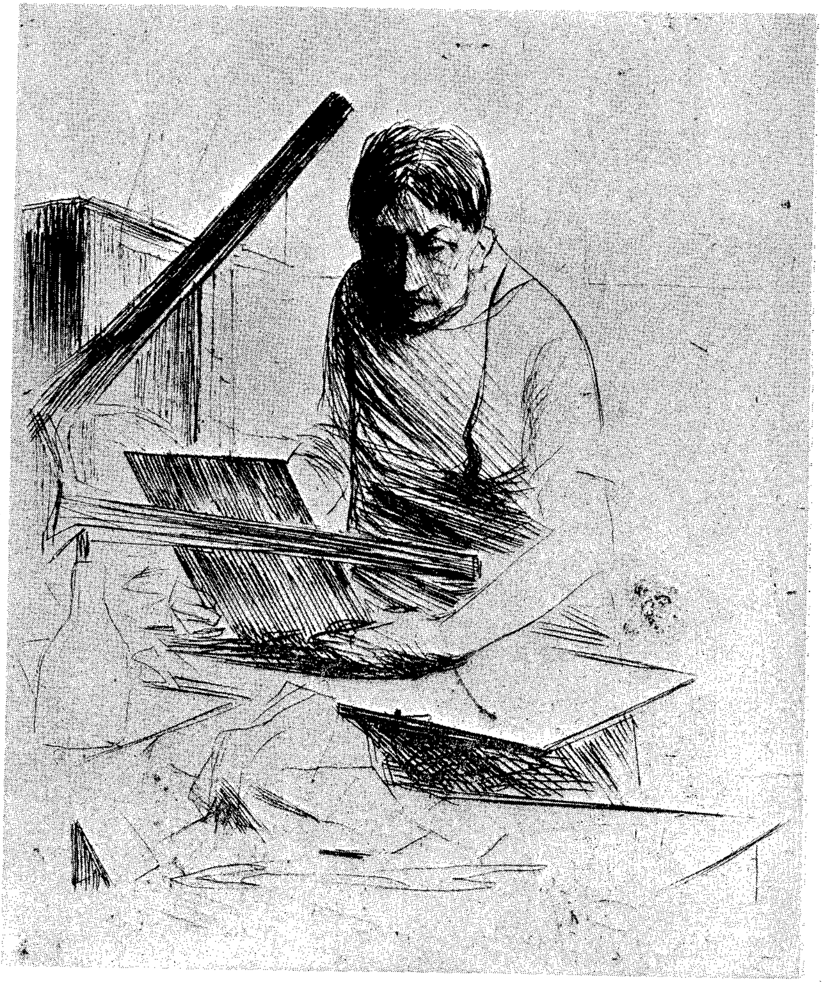
RESPONSIBLE connoisseurs have called Forain one of the greatest etchers of all time, belonging in the select company headed by Rembrandt. He is regarded as only slightly less important as a lithographer and of no consequence, comparatively, as a painter.

He was master of the eloquent and economical line. His greatest etchings owe their grandeur and their human appeal to the intensity and sureness with which all is told and all is suggested through line alone. Effects of half-tone shadings are in the way of after-thoughts which embellish without essentially strengthening the original conception. Consider for example, *The Return of the Prodigal Son,* known to everyone who knows the name of Forain. A similarly powerful emotion is conveyed through similar means in *L'Imploration devant la Grotte, Lourdes.* Almost it would seem that the more scant the obvious means, the more powerful and inevitable the effect produced.

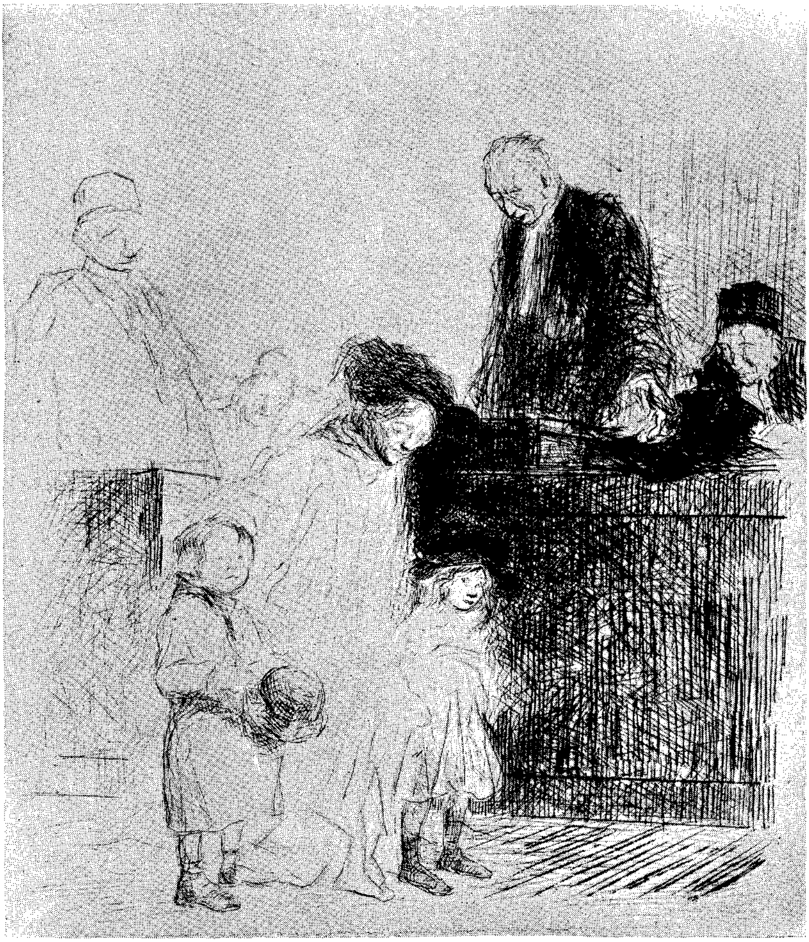
Forain was almost 79 years old when he died in July, 1931. His work as an artist began almost as soon as he had completed his military service. Paris knew him first as an illustrator for the humorous magazines, in which wit and draughtsmanship were equally matched. In this phase of his work he carried on in the spirit of Daumier and Gavarni. He began to etch in 1886 but achieved no distinctive plates. He abandoned the etching point and found himself more at ease as a lithographer, the French rating his work on the stone second to that of Toulouse-Lautrec alone. All this time, of course, he was continuing his work for the magazines. During the Dreyfus affair he contributed a series of anti-Semitic drawings distinguished chiefly for their ferocity. Later on, during the War, he found he had a few vials of wrath left over for the Boche.

His great period dates from December, 1908, when he resumed etching. He then began his most notable series of New Testament plates. Aside from his superb draughtsmanship, Forain owes his present greatness to an intense feeling of religion and of tenderness, an attitude implicit even in his series of plates on the law courts.

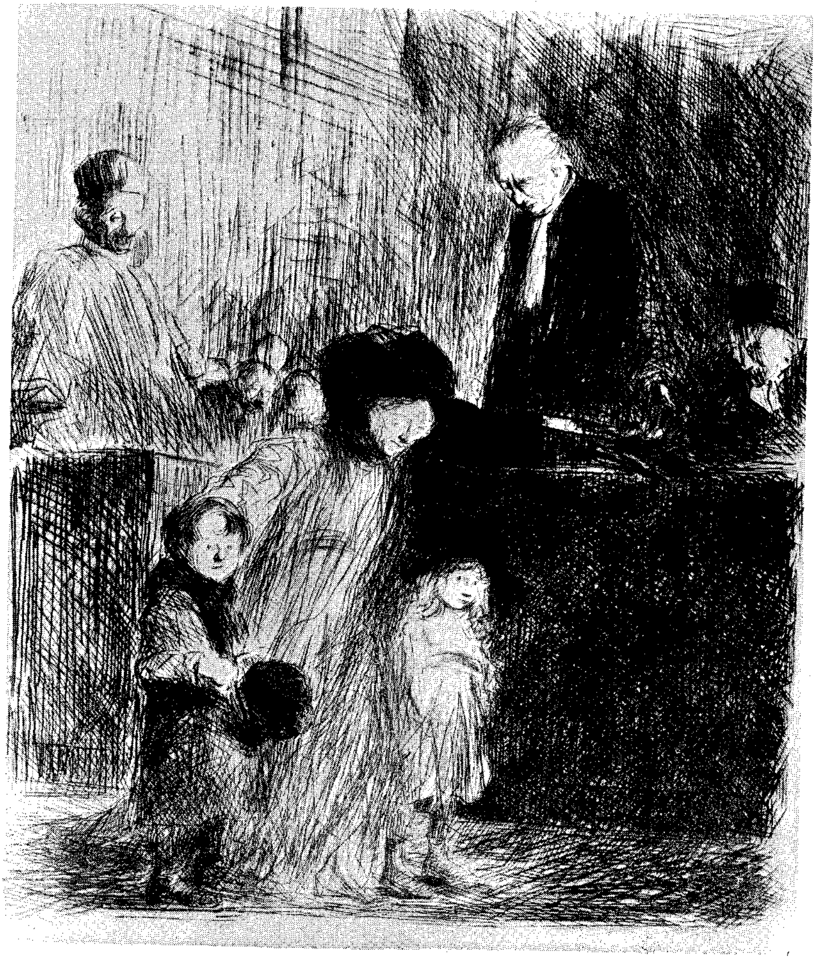
—HARRY SALPETER



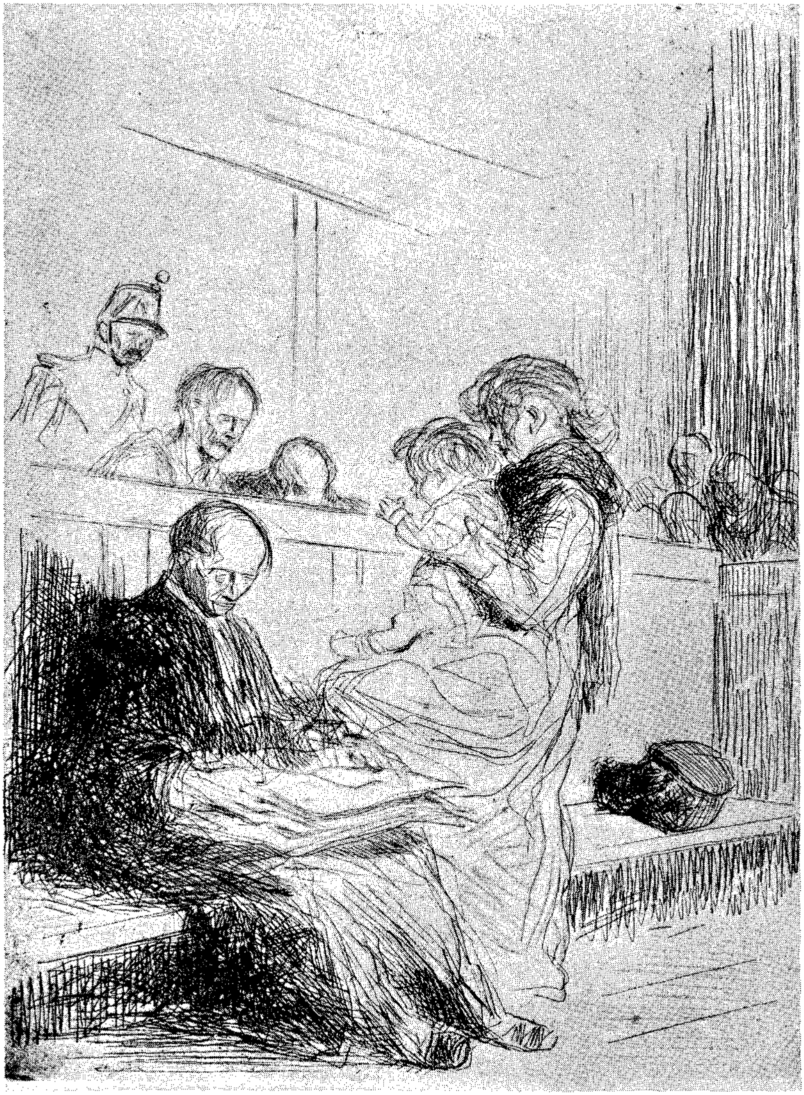
PORTRAIT OF THE ARTIST



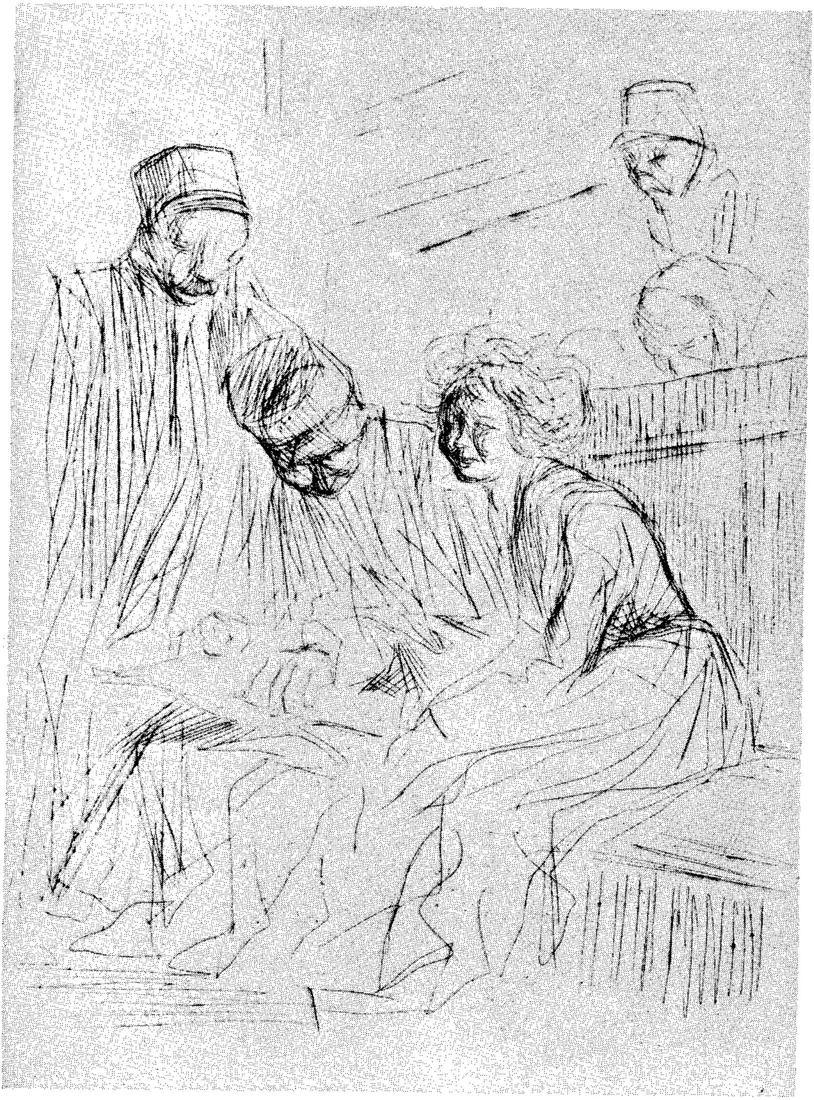
THE EMPTYING COURTROOM
(FIRST STATE)



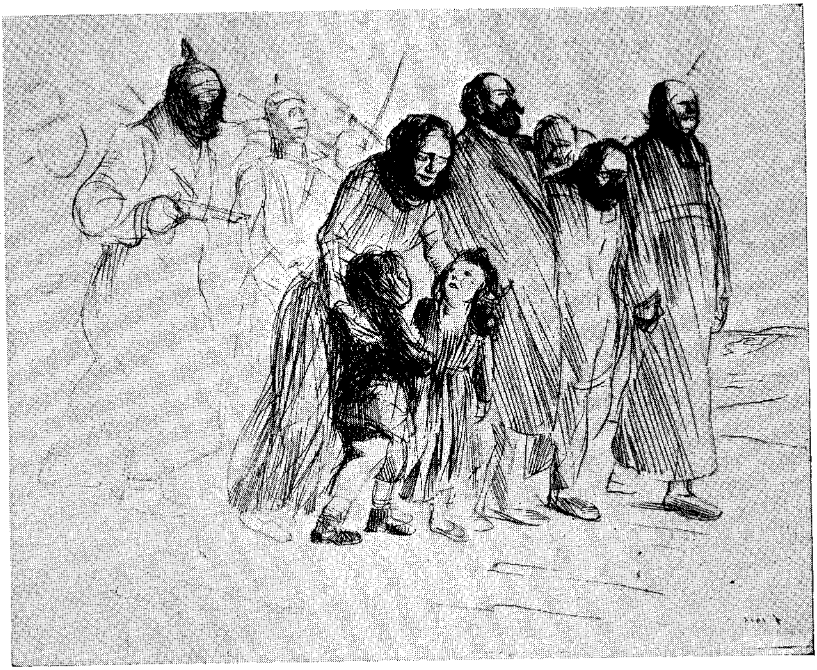
THE EMPTYING COURTROOM
(SECOND STATE)



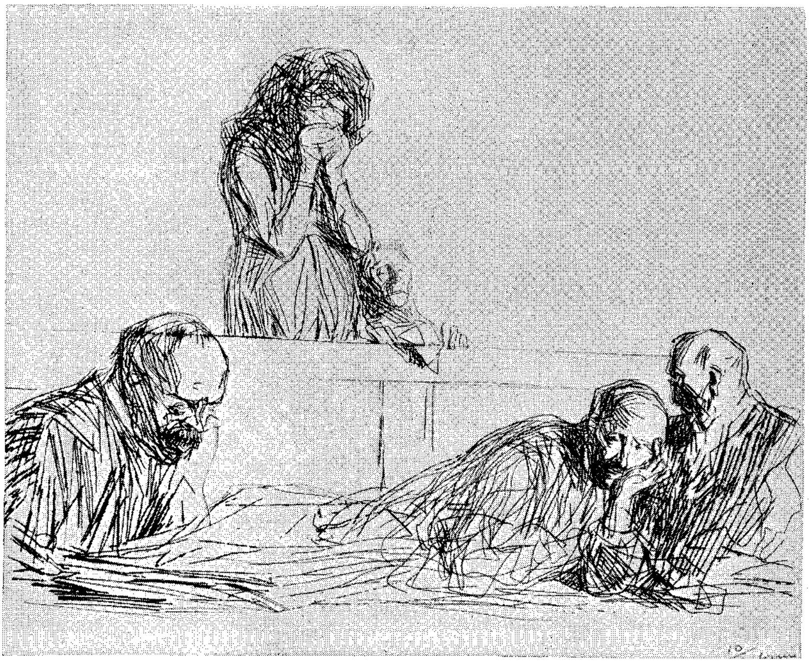
THE PRISONER'S CHILD



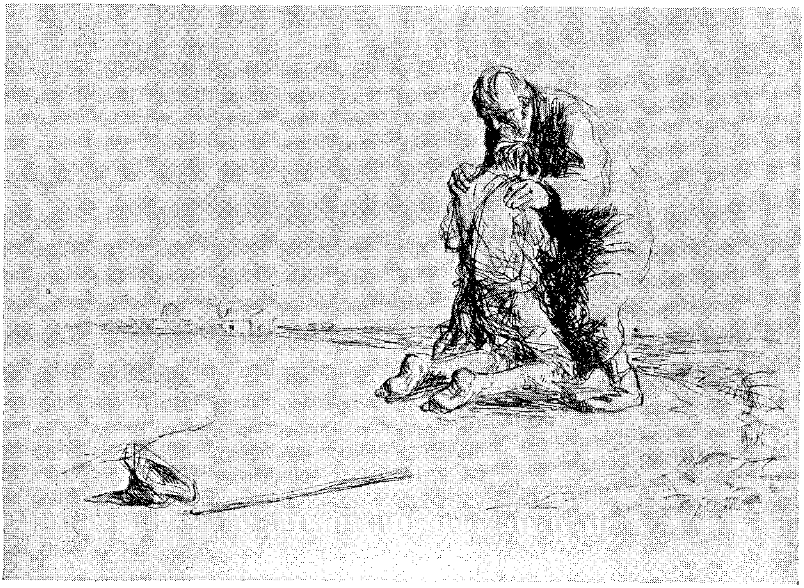
HEARING THE CHARGES



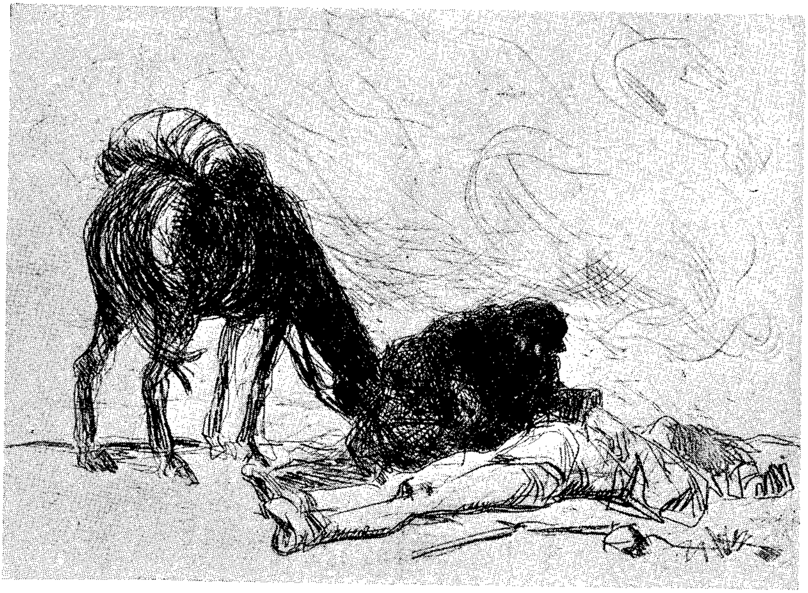
CASUALS OF WAR



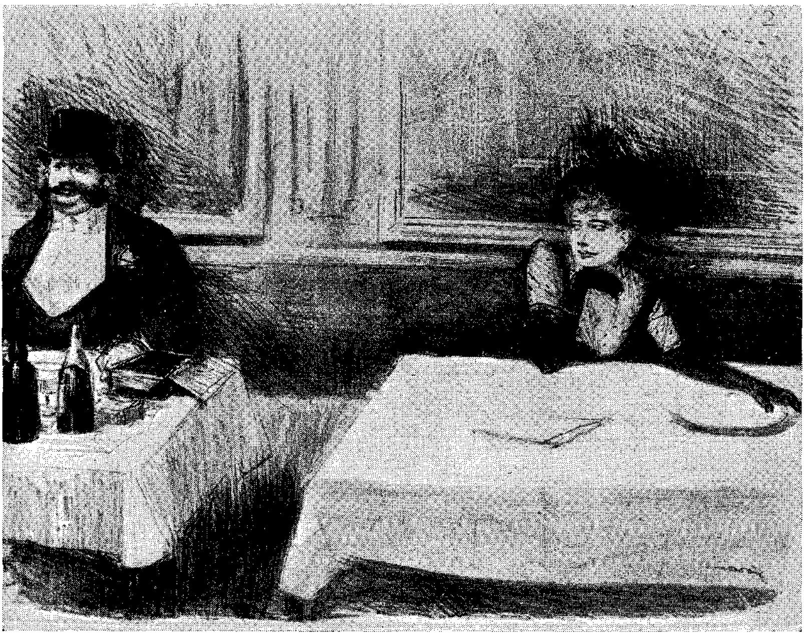
JUVENILE DELINQUENT



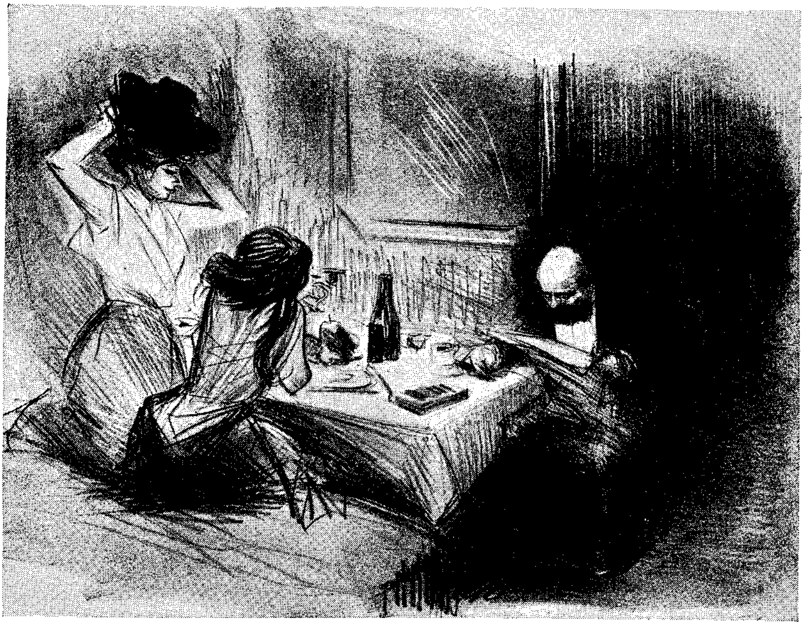
THE PRODIGAL SON



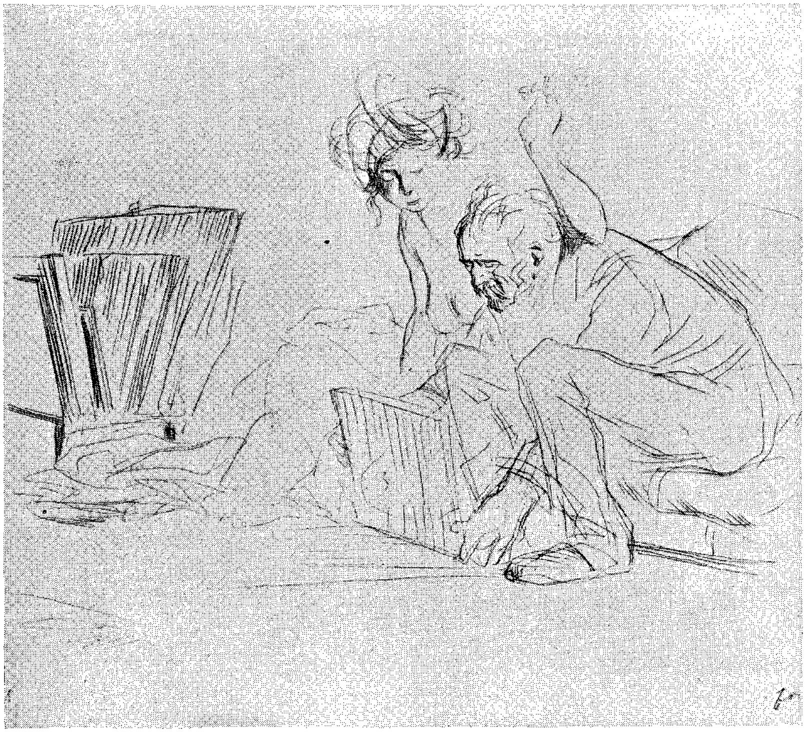
THE GOOD SAMARITAN



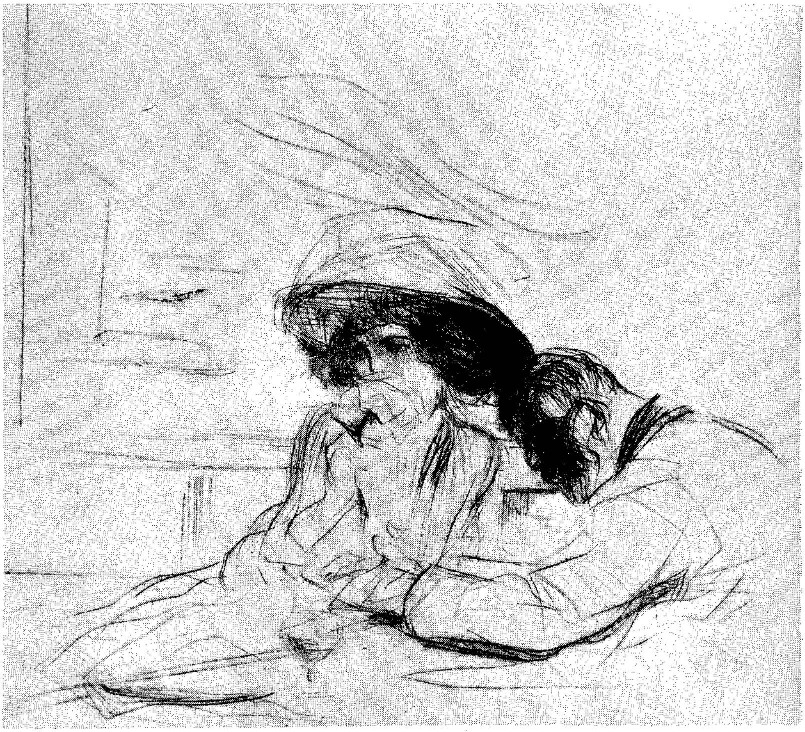
THE ENCOUNTER



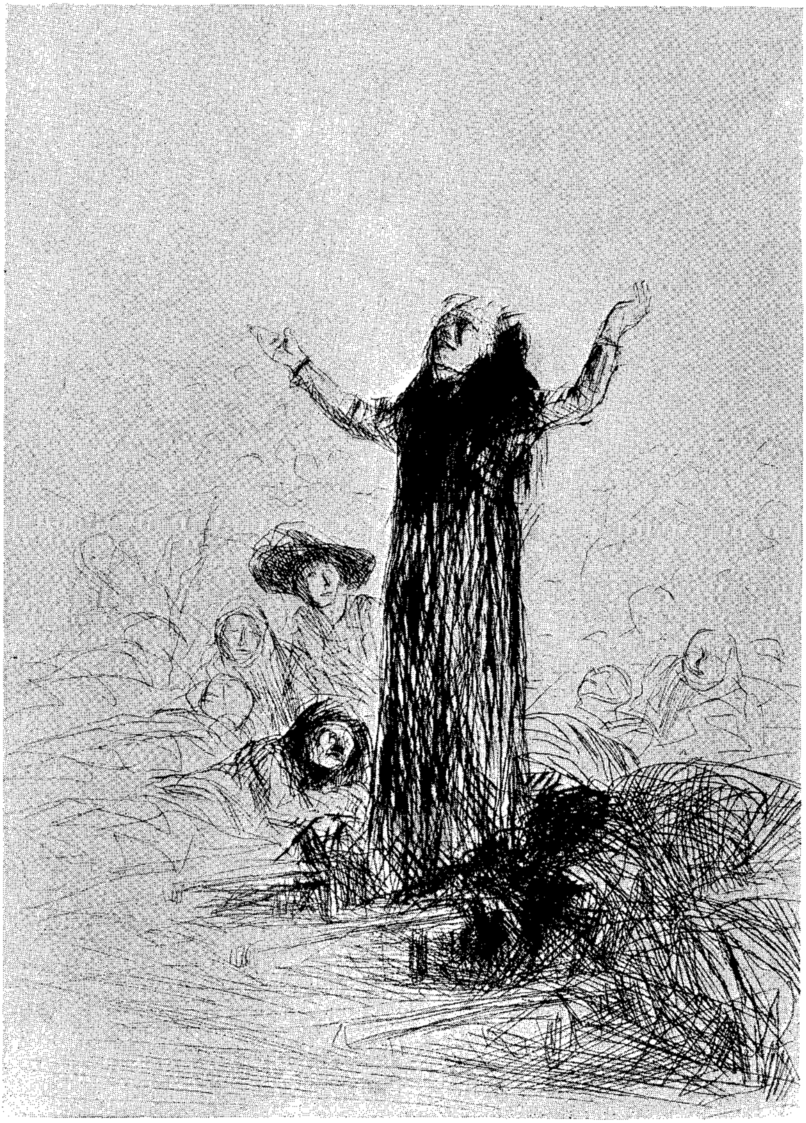
PRIVATE DINING ROOM



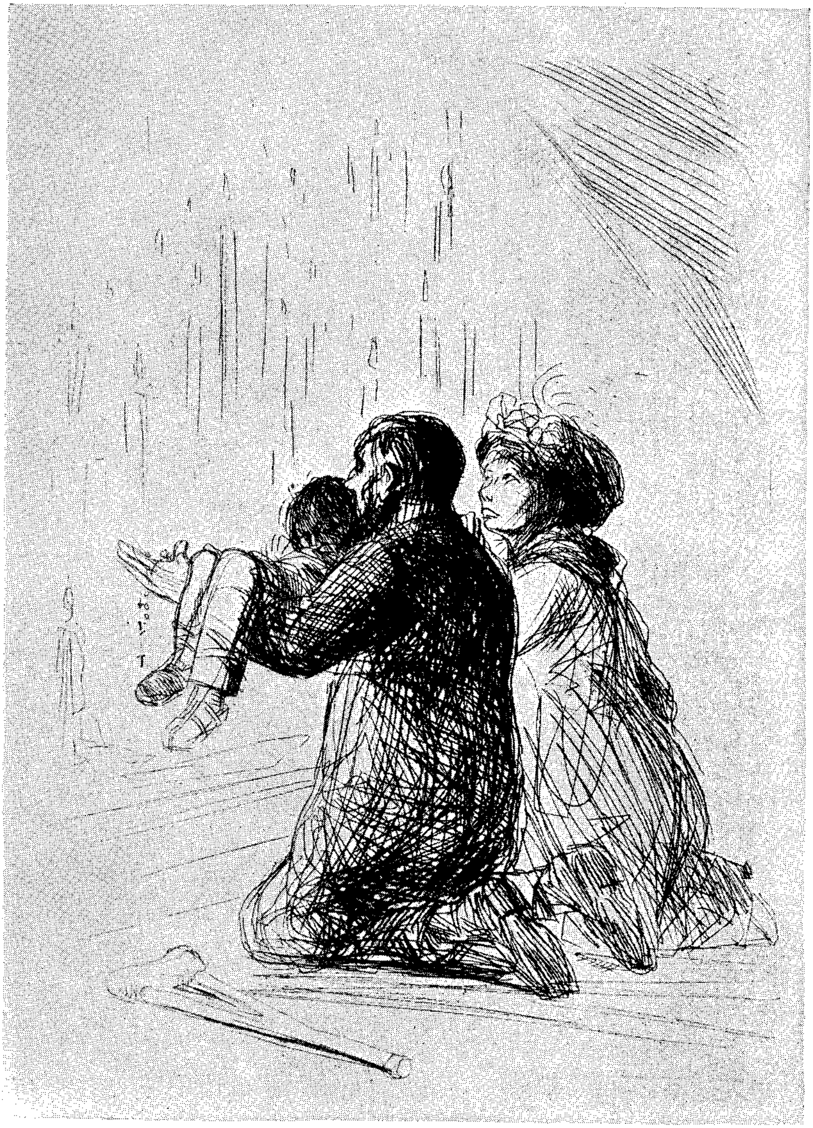
THE MODEL'S LUNCHBOX



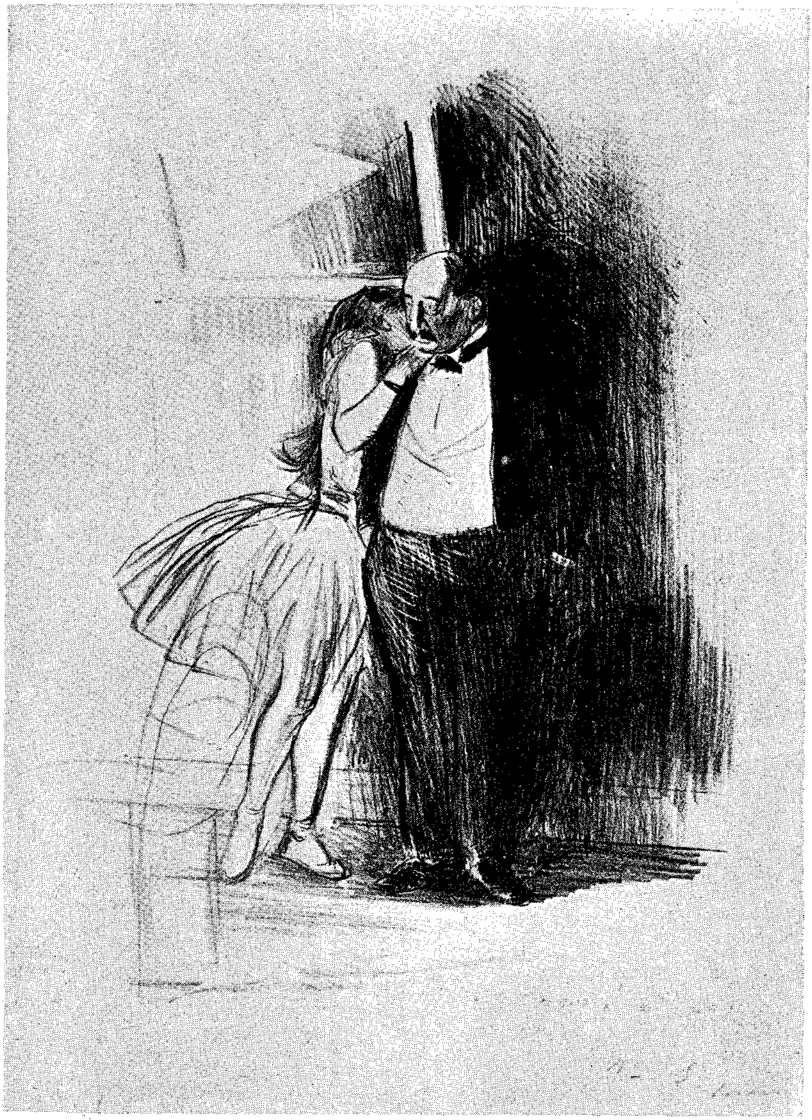
END OF EVERYTHING



LOURDES: THE MIRACLE-HEALED



BEFORE THE GROTTO AT LOURDES



CONFESSION

(PAGES 39-54 COURTESY KNOEDLER GALLERIES, N. Y.)

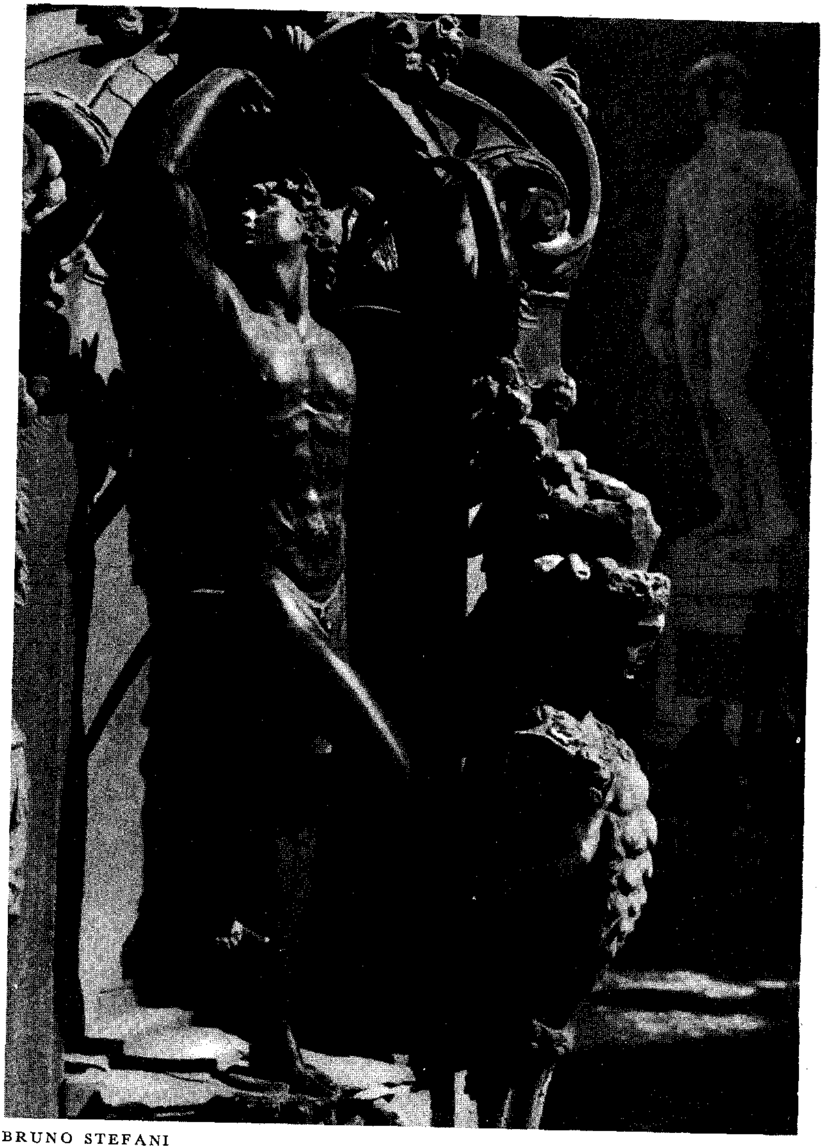
TALKING PICTURES

ABOUT THE CAMERA ART OF NELL DORR, NOW FIRST FEATURED IN THIS ISSUE

NELL DORR trains an ordinary camera with rare instinct and selectivity to produce uncommon pictures of very common things. Without tricks of angle or light she imparts a special mood to whatever the eye of her camera lights upon. Whether she works with an abstraction of delicate marine traceries or the joy of a child at the seashore she brings more than mere technique to bear. There is something of the quality of herself in everything she does. This combination of craftsmanship and character is what makes her pictures unusual. She believes that you can't use a camera until you feel the thing it is to mirror. And because her principal joy is living, her pictures have vitality.

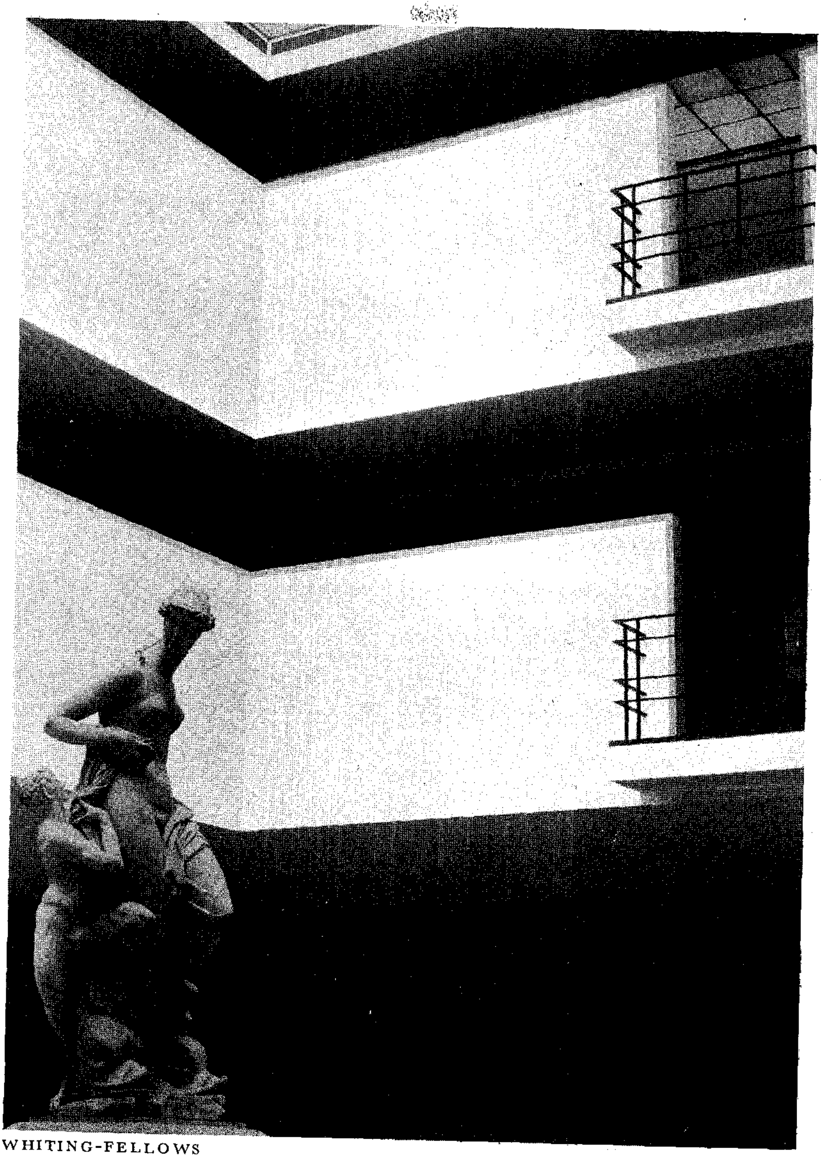
She trains her camera like her mind and only picks up what appeals to her. Because she hates pretense and artificiality she turns to simple things and endows them with dignity and charm. Her nudes are utterly pagan and combine a sense of freedom with glowing health. There is in them never a sense of posing; they are as natural as flowers. She uses shy children and girls who have never modeled. Her mood carries through the lens and because they respond to it they lose all sense of self-consciousness.

The camera is her natural heritage. Her father, Jacob Becker, combined photography with chemistry and to his Cleveland studio most of the early great photographers came for instruction. None learned from him more eagerly than his daughter, who asked for developing fluid instead of dolls at Christmas time. Today, wife of John Van Nostrand Dorr, one of the outstanding mining engineers of the country, she uses it simply to share with him the joy of what she produces. They roam the world together, on trips that combine business with pleasure, and the most important part of the baggage is the Graflex, which has trekked across South Africa and Mexico. With it Nell Dorr searches out the streets of New York. And every weekend the Graflex goes to Connecticut, where the Dorrs retreat to a sturdy cottage of vaguely Swedish outline. There it works overtime, recording the soft rolling hills, the sweep of the Sound, the simple sturdiness of the natives. —M. O'B.


BRUNO STEFANI

MILANO

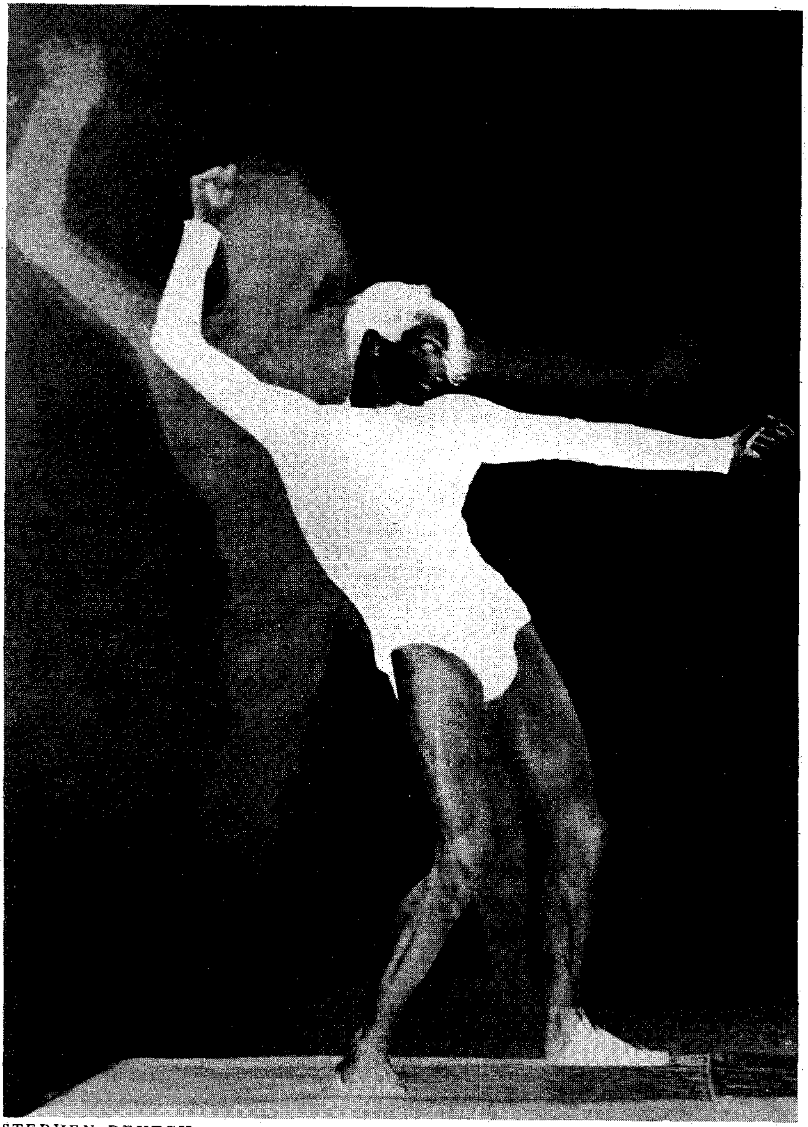
MILANESE MERCURY



WHITING-FELLOWS NEW YORK

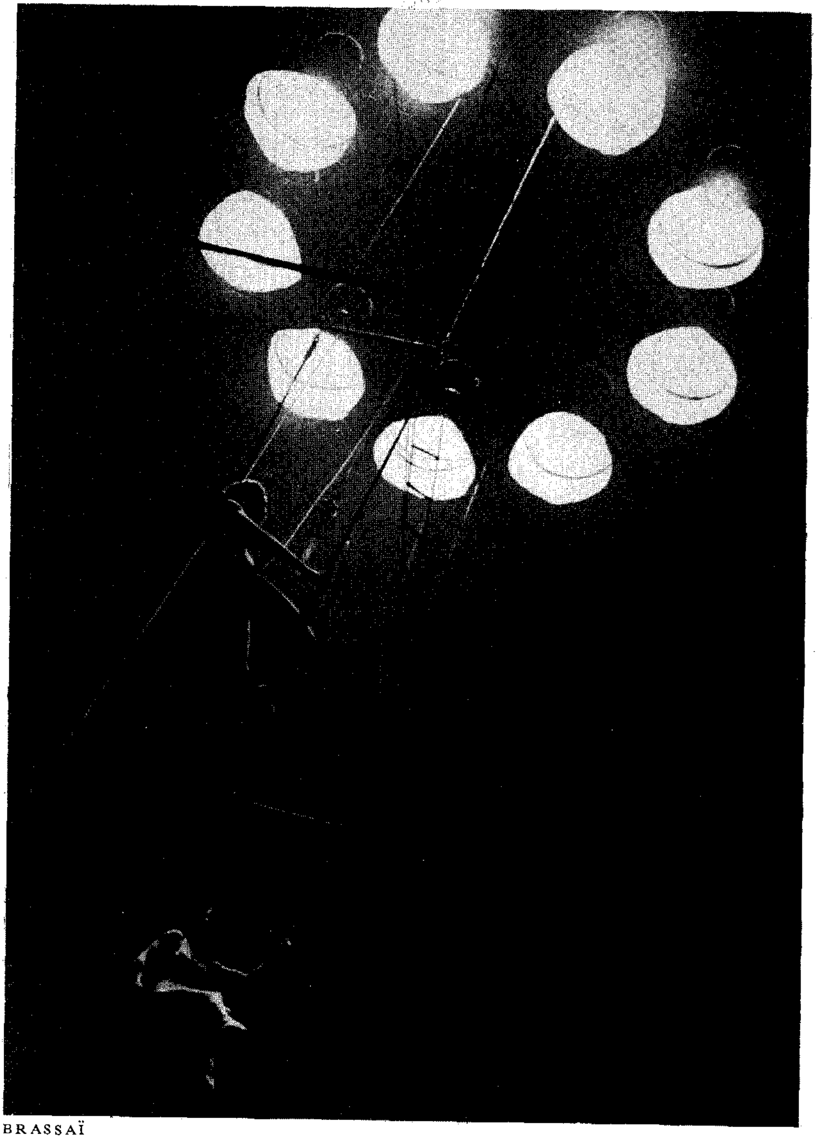
MANHATTAN VENUS

SEPTEMBER, 1937



STEPHEN DEUTCH CHICAGO

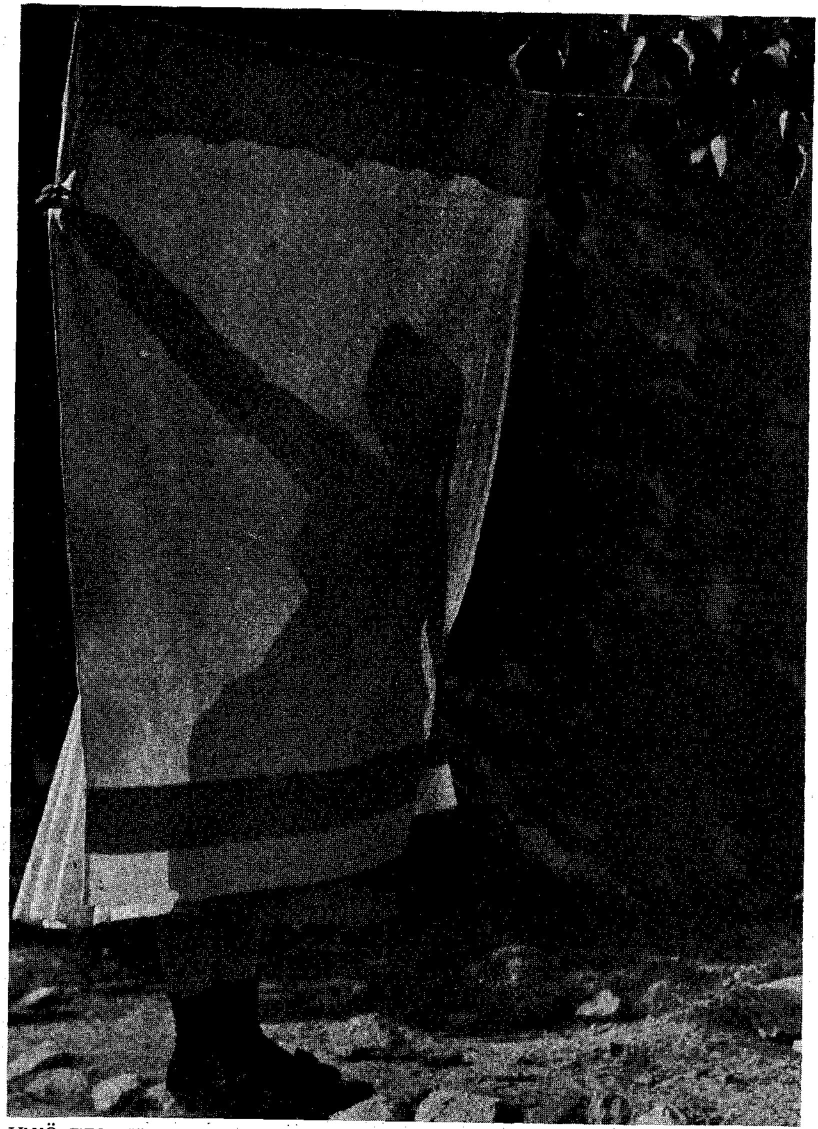
IN POSE



BRASSAÏ PARIS

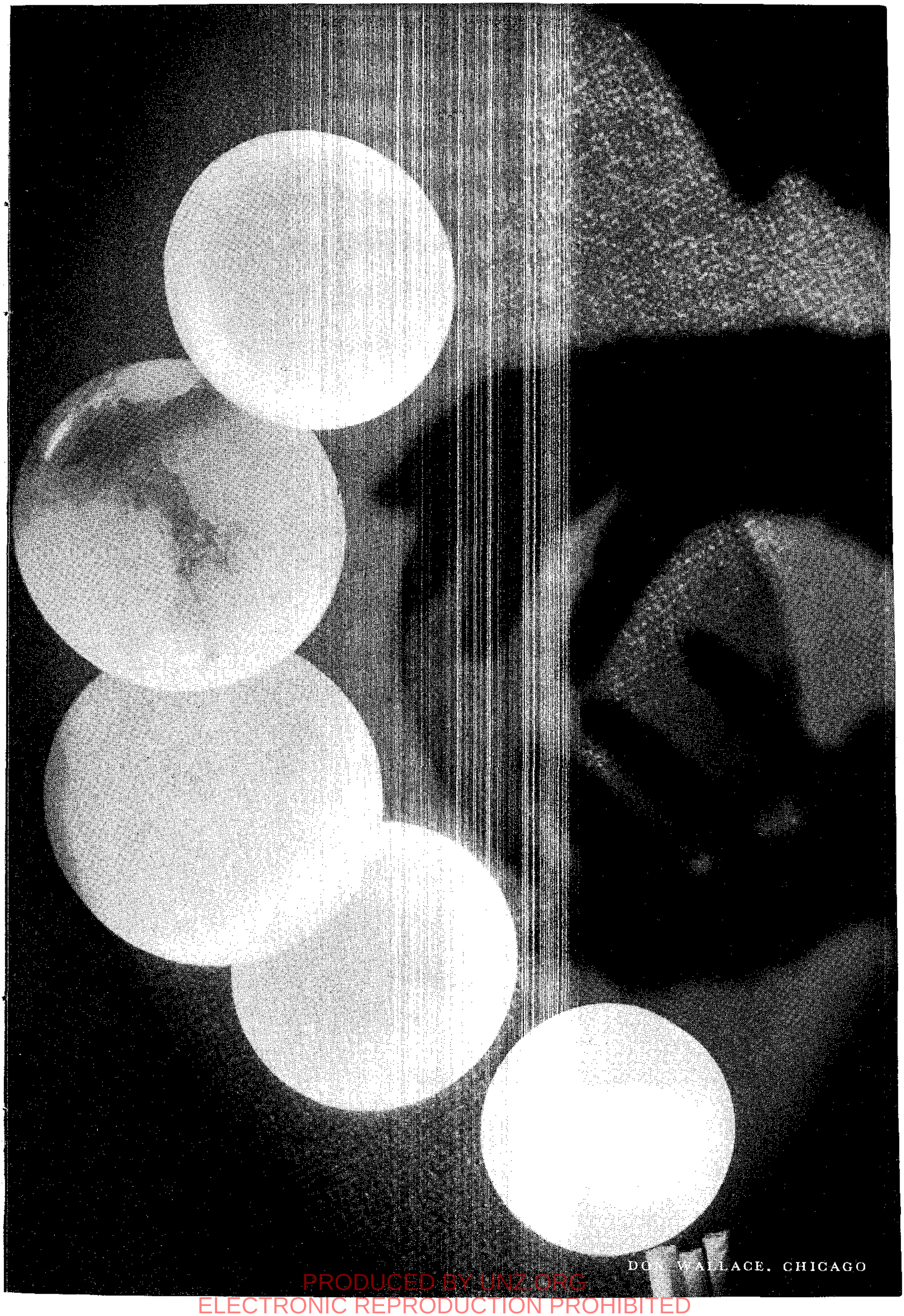
IN ACTION

SEPTEMBER, 1937

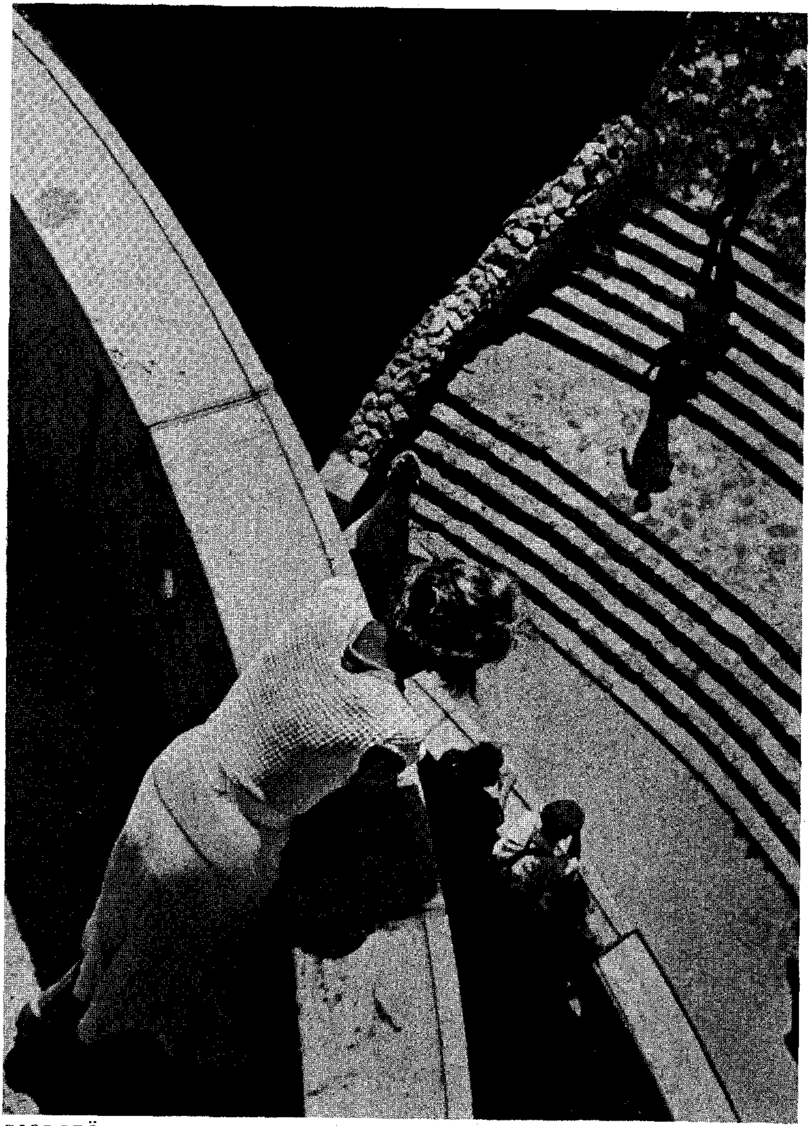


JENÖ DENKSTEIN BUDAPEST

CLOTHESLINE



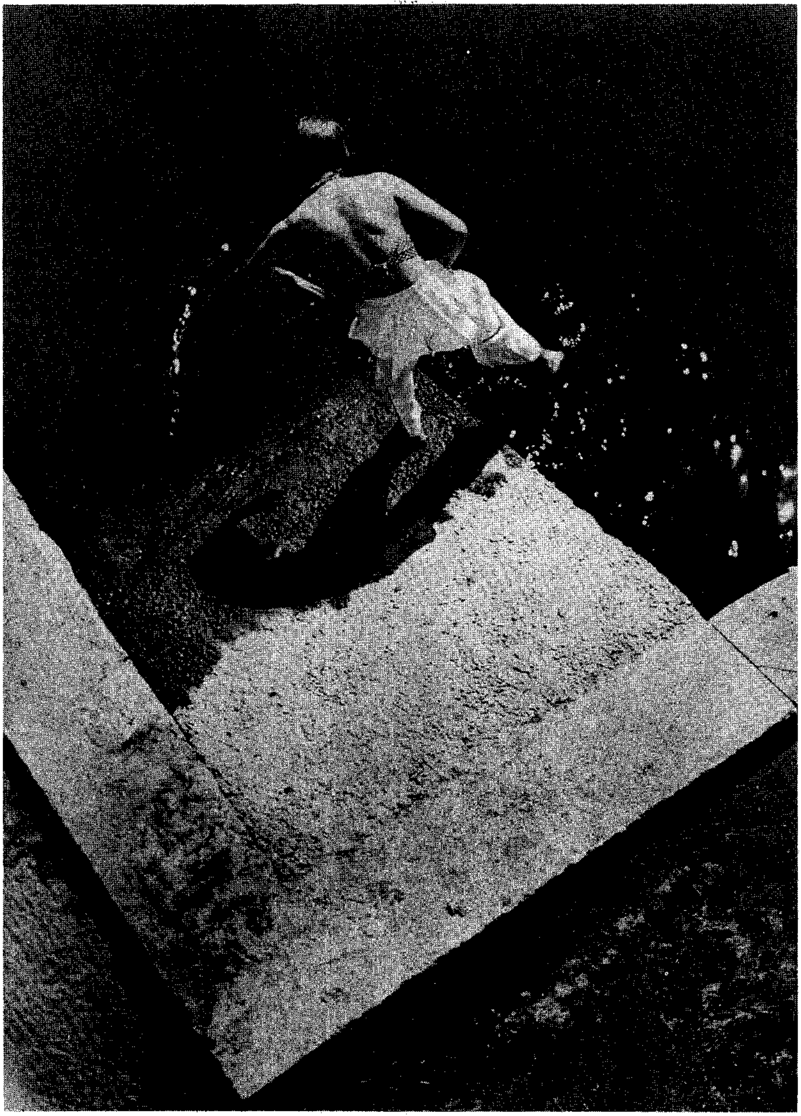
DON WALLACE, CHICAGO



CSORGEÖ

BUDAPEST

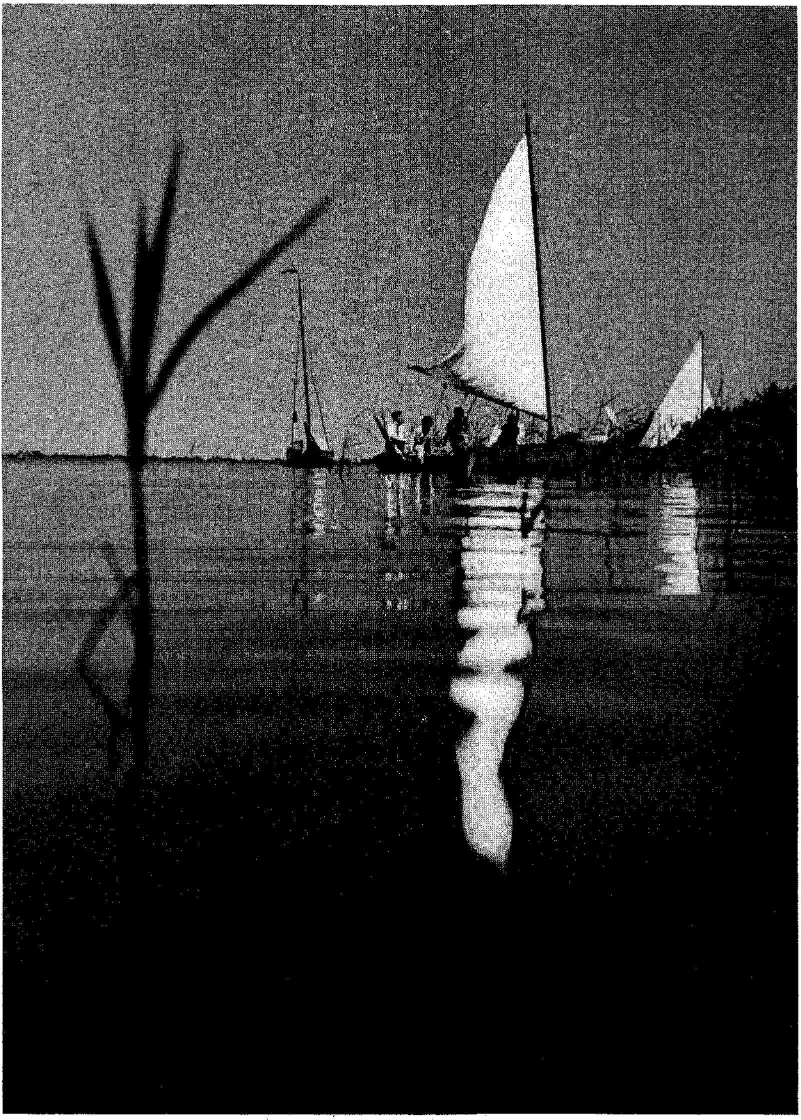
FIGURE AND CURVES



DR. J. KUNSZT BUDAPEST

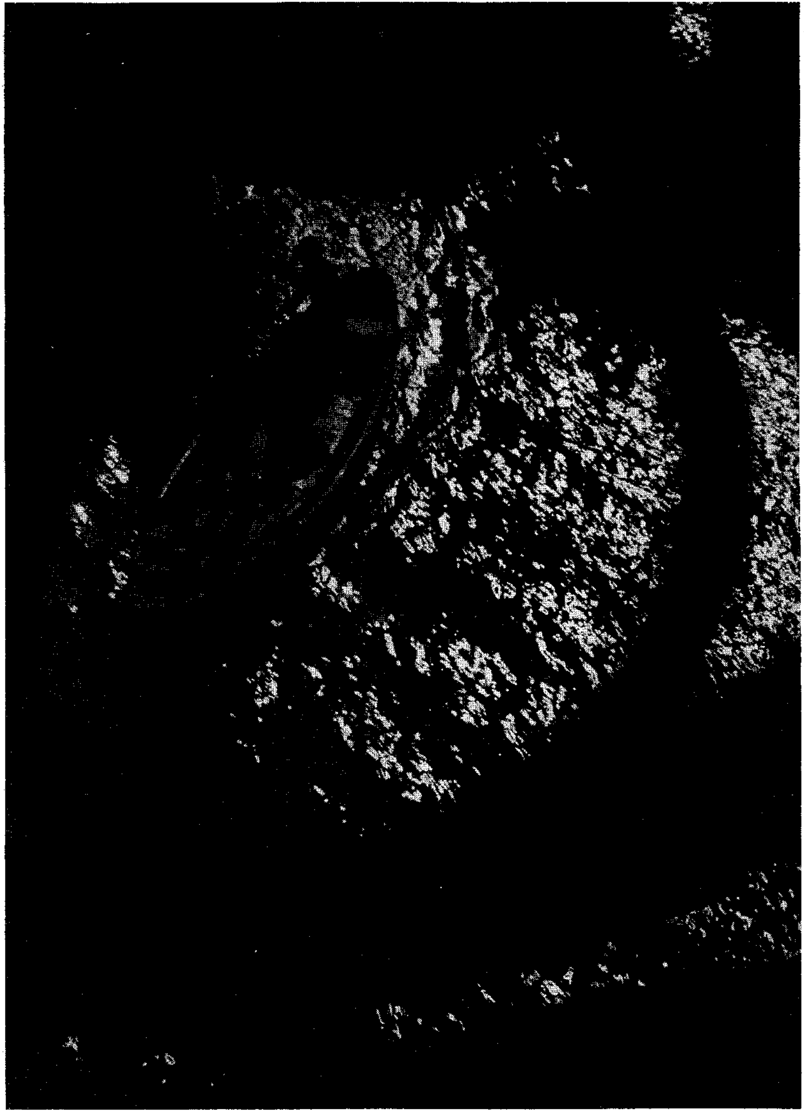
FIGURE AND ANGLES

SEPTEMBER, 1937



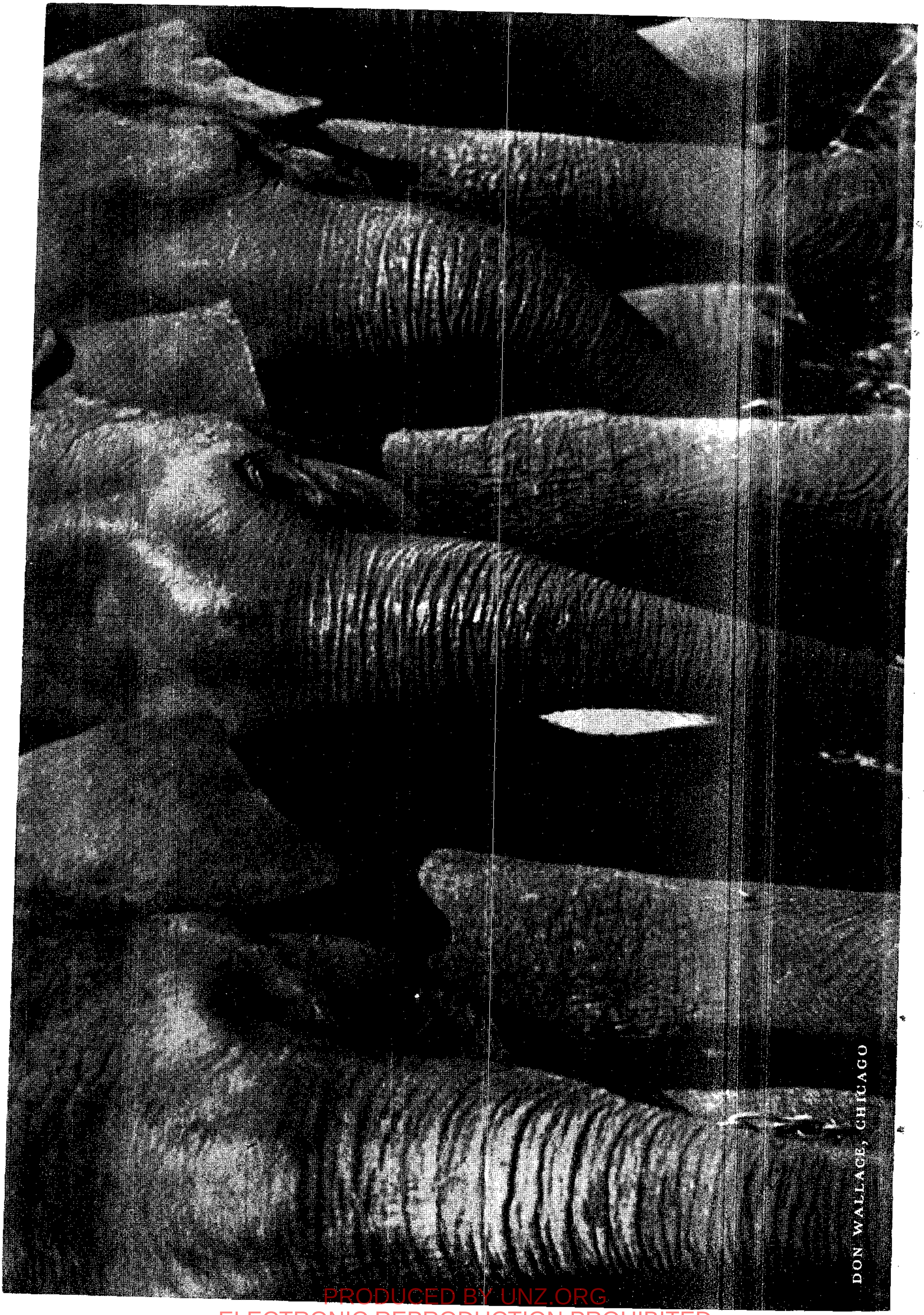
EVA BESNYÖ FROM WOLFF-LONDON

STILL WATERS

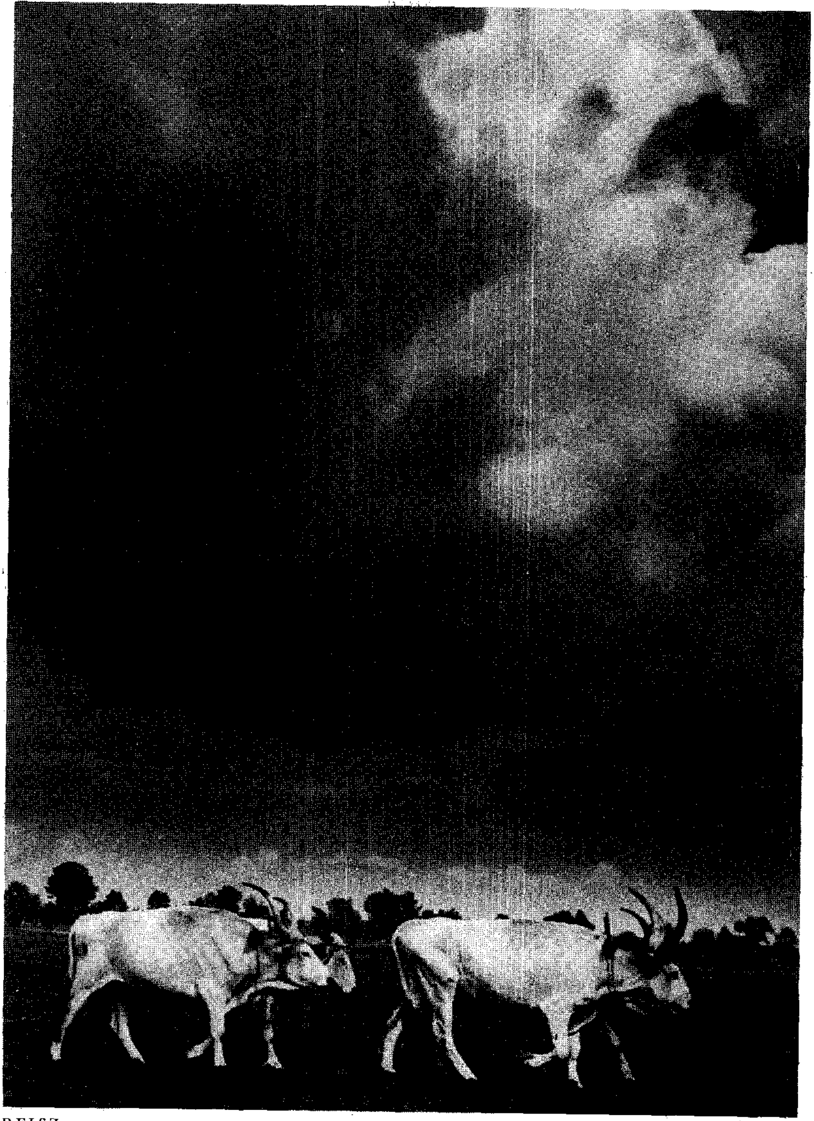


JENÖ DULOVITS BUDAPEST

BENEATH THE BRIDGE



DON WALLACE, CHICAGO

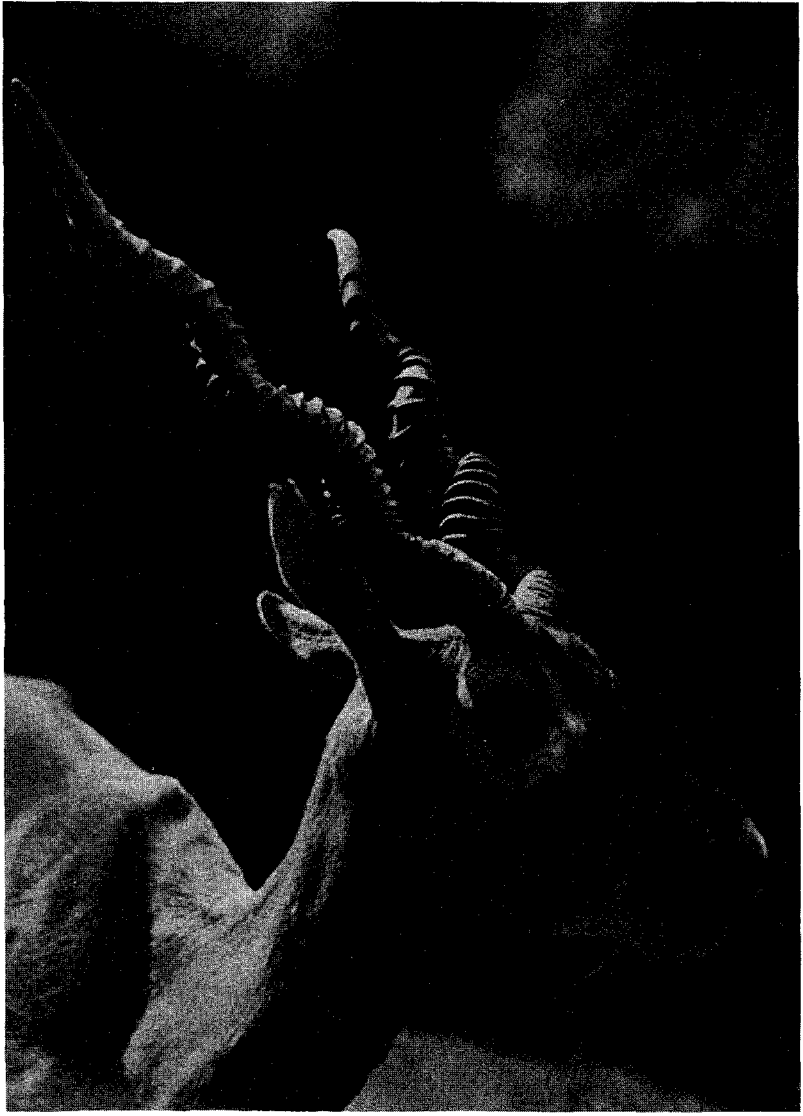


REISZ

FROM EUROPEAN

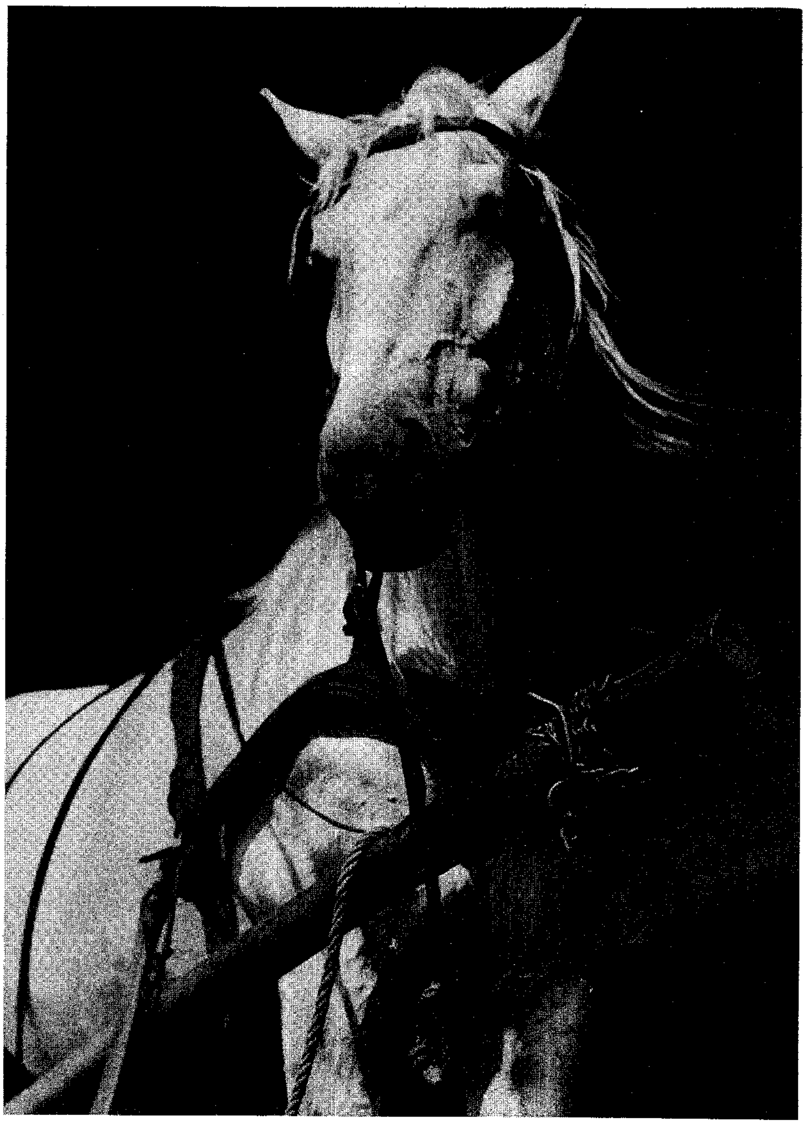
YOKED OXEN

SEPTEMBER, 1937



JENÖ DENKSTEIN BUDAPEST

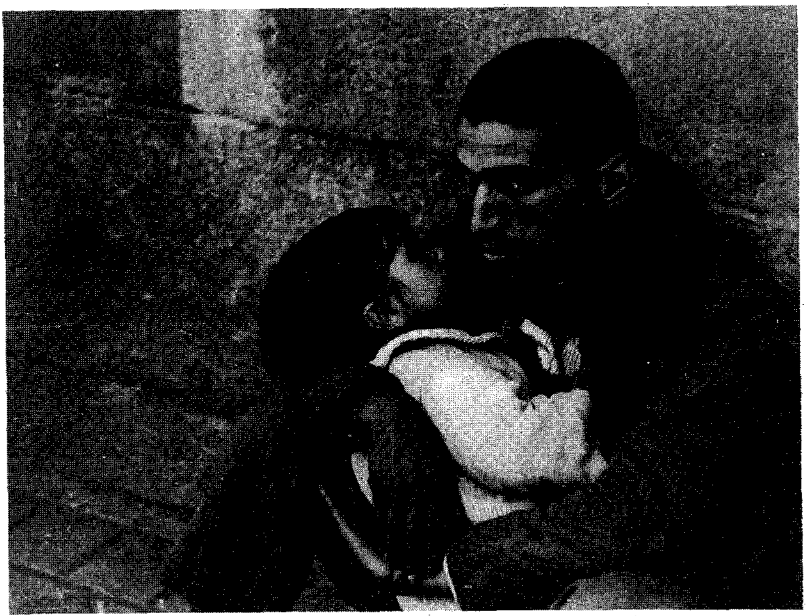
CAPTIVE



VADAS, BUDAPEST FROM SCHULZ, L. I.

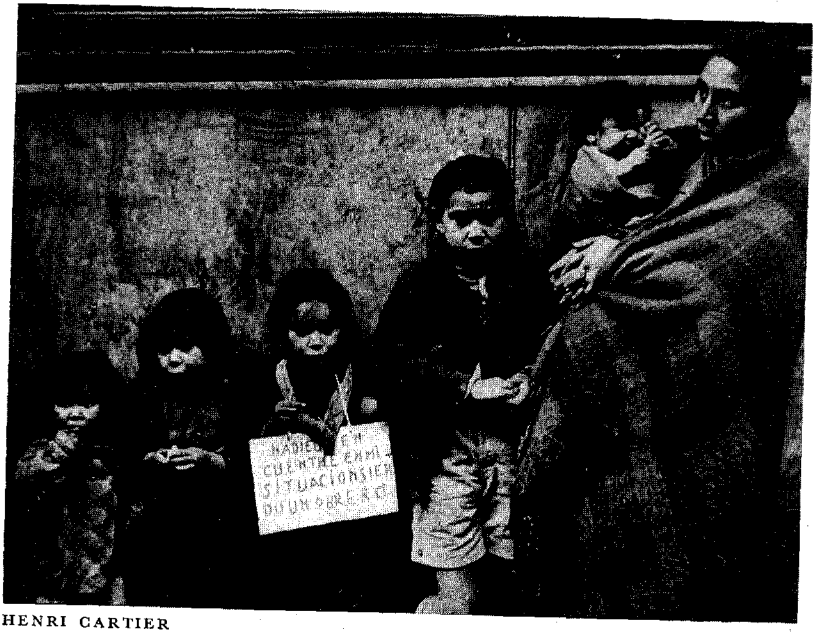
WORKER

SEPTEMBER, 1937



HENRI CARTIER PARIS

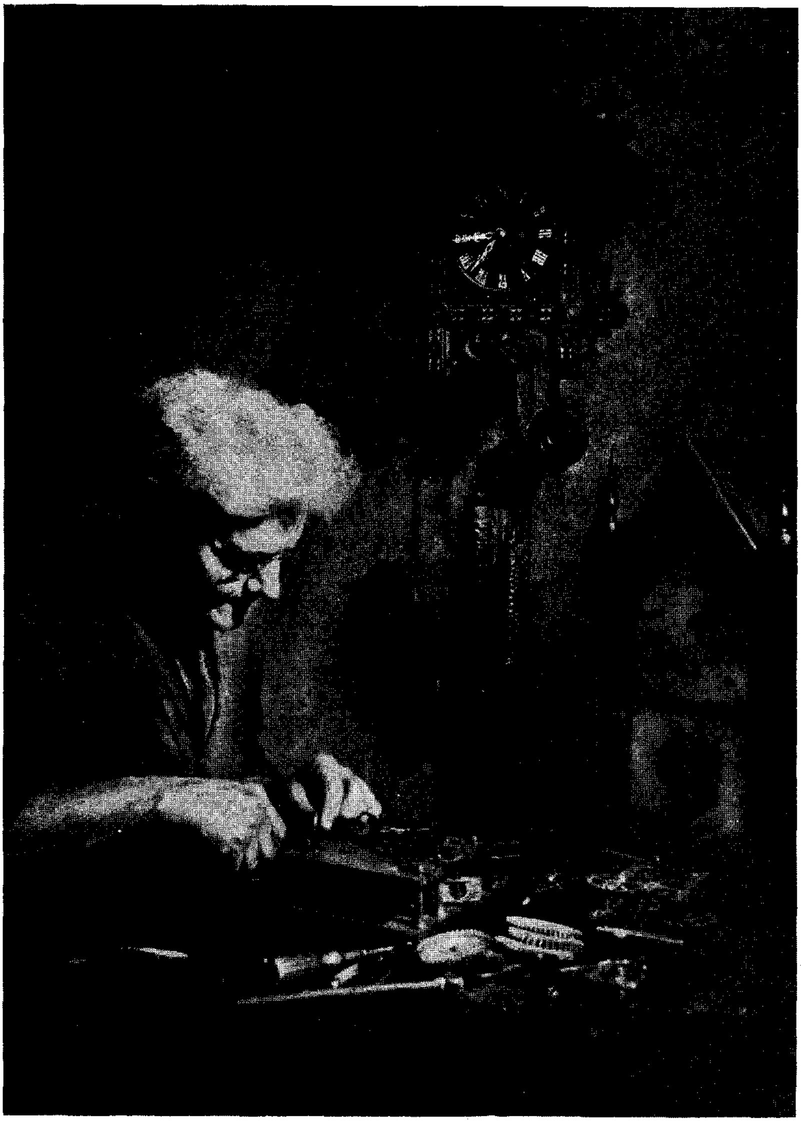
SPANISH FATHER


NADIE EN
CUENTA EN MI
SITUACION SIEN
DO UN OBRERO

HENRI CARTIER

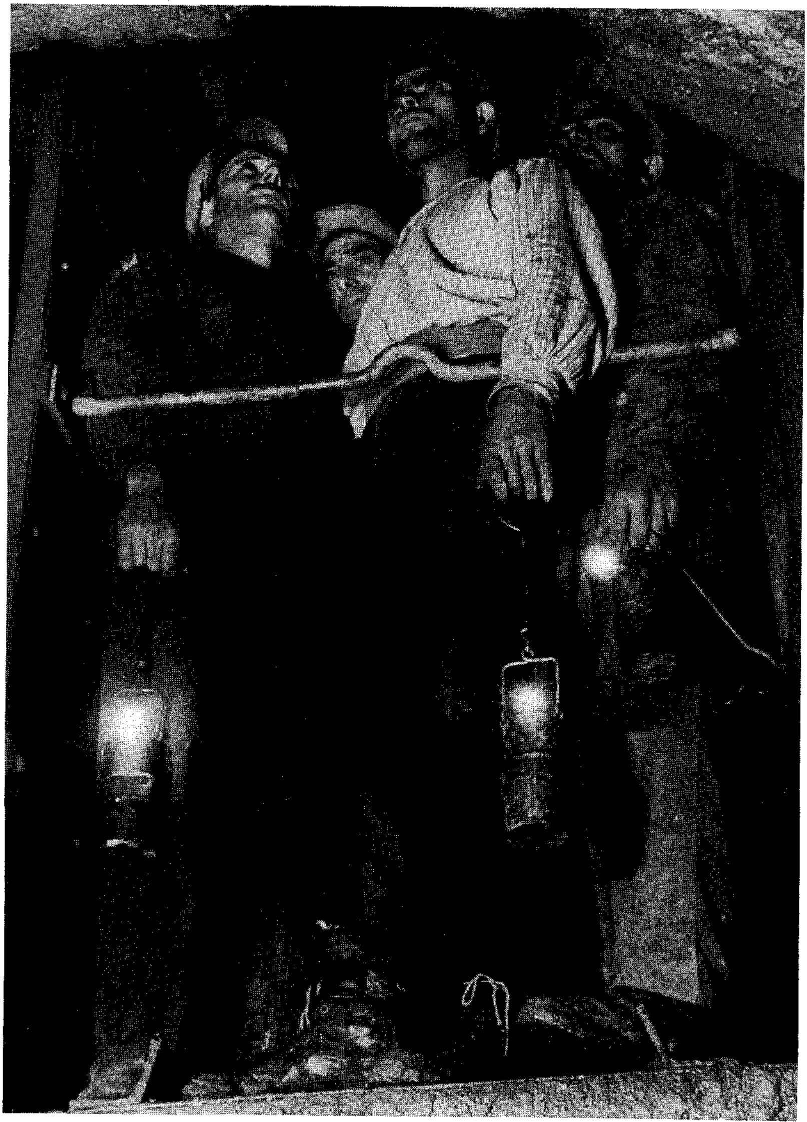
PARIS

SPANISH MOTHER



WM. EDWIN BOOTH RICHMOND, VA.

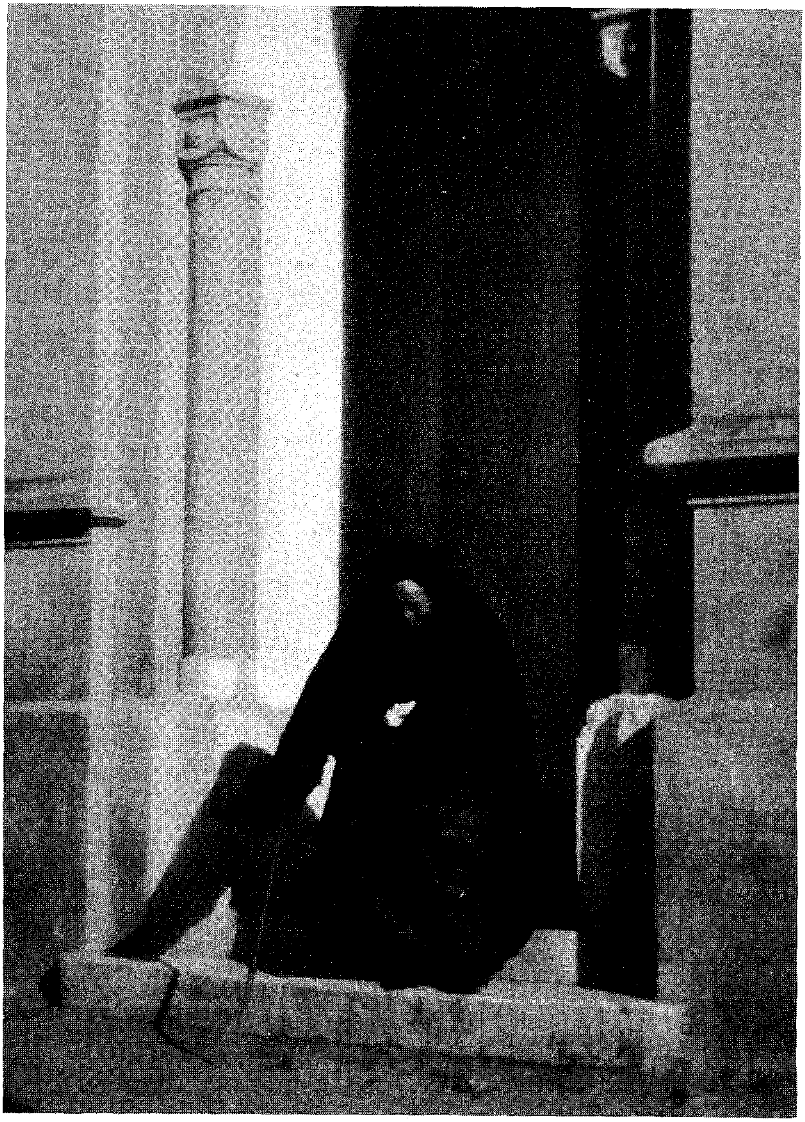
PAST



BRUNO STEFANI MILANO

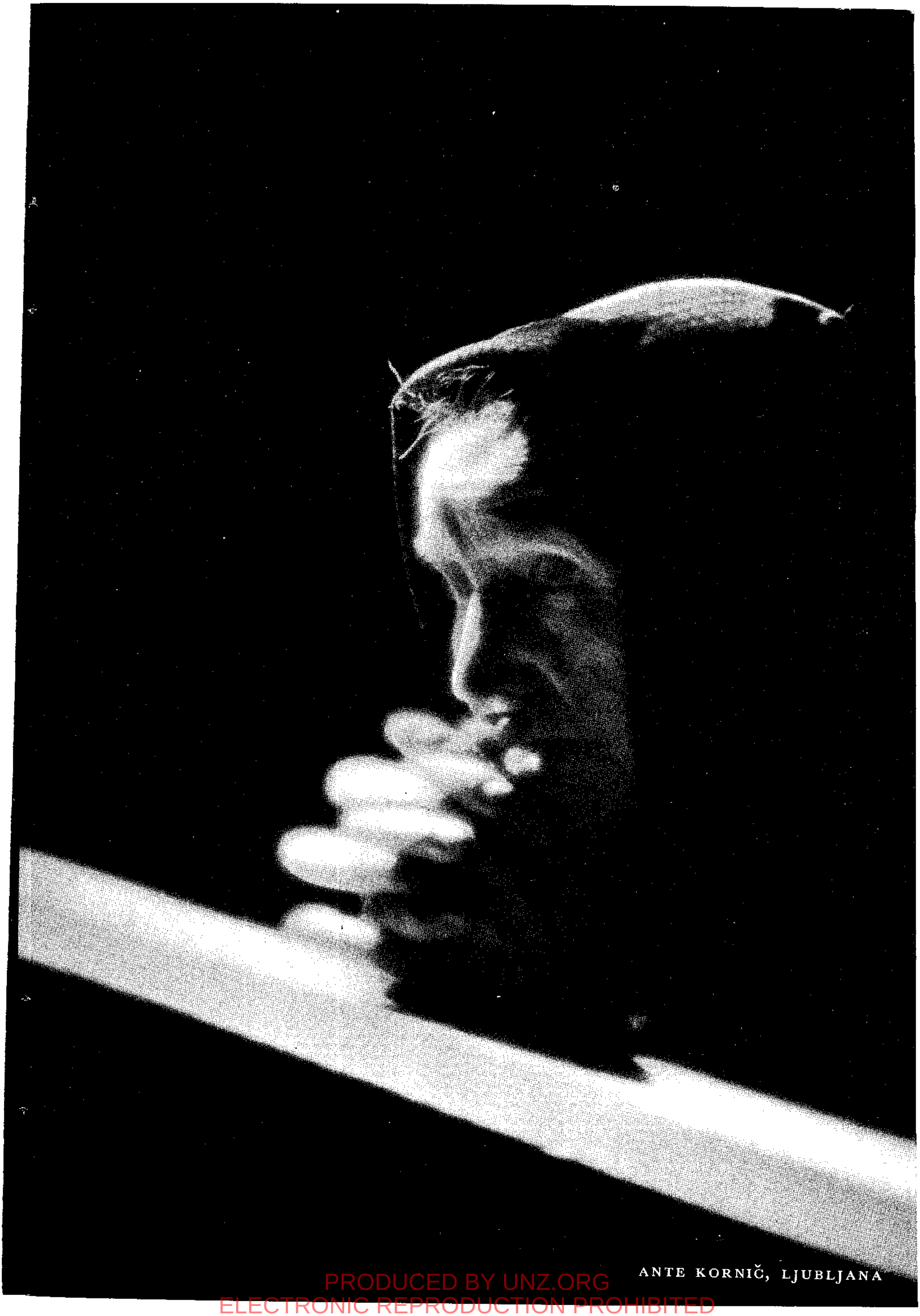
PRESENT

SEPTEMBER, 1937

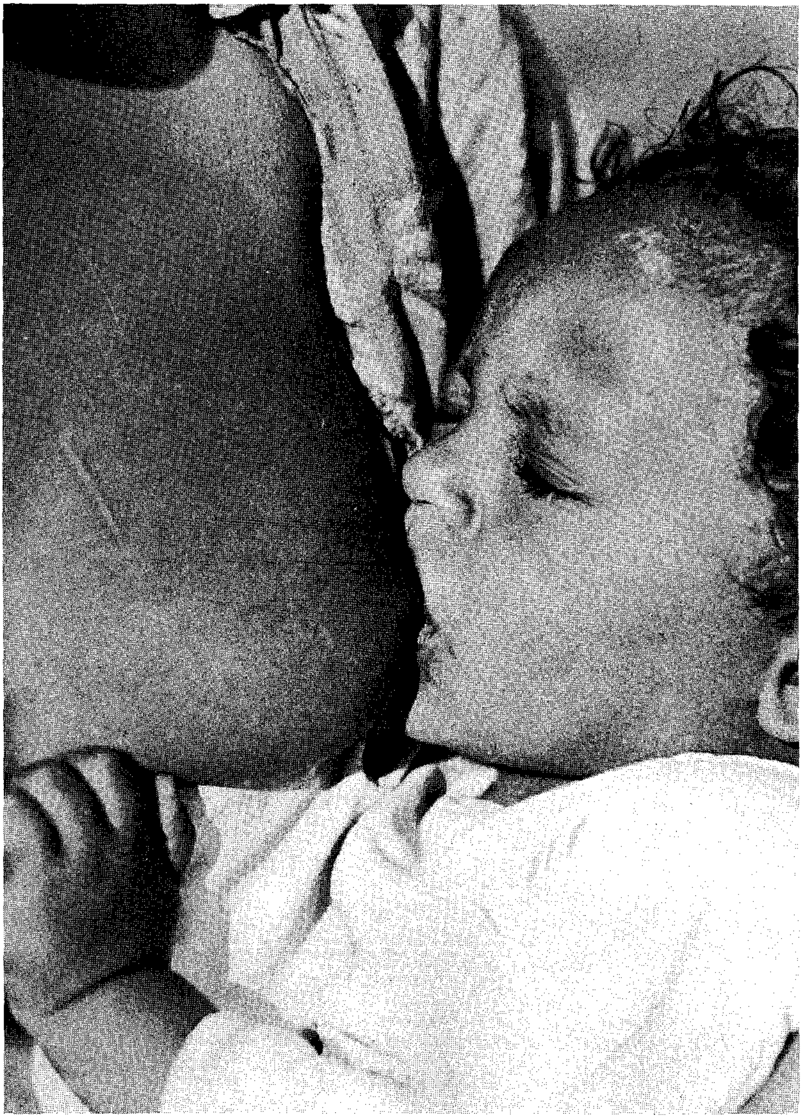


NANDOR ANGYALFI SOPRON, HUNGARY

TOWARD SUNSET

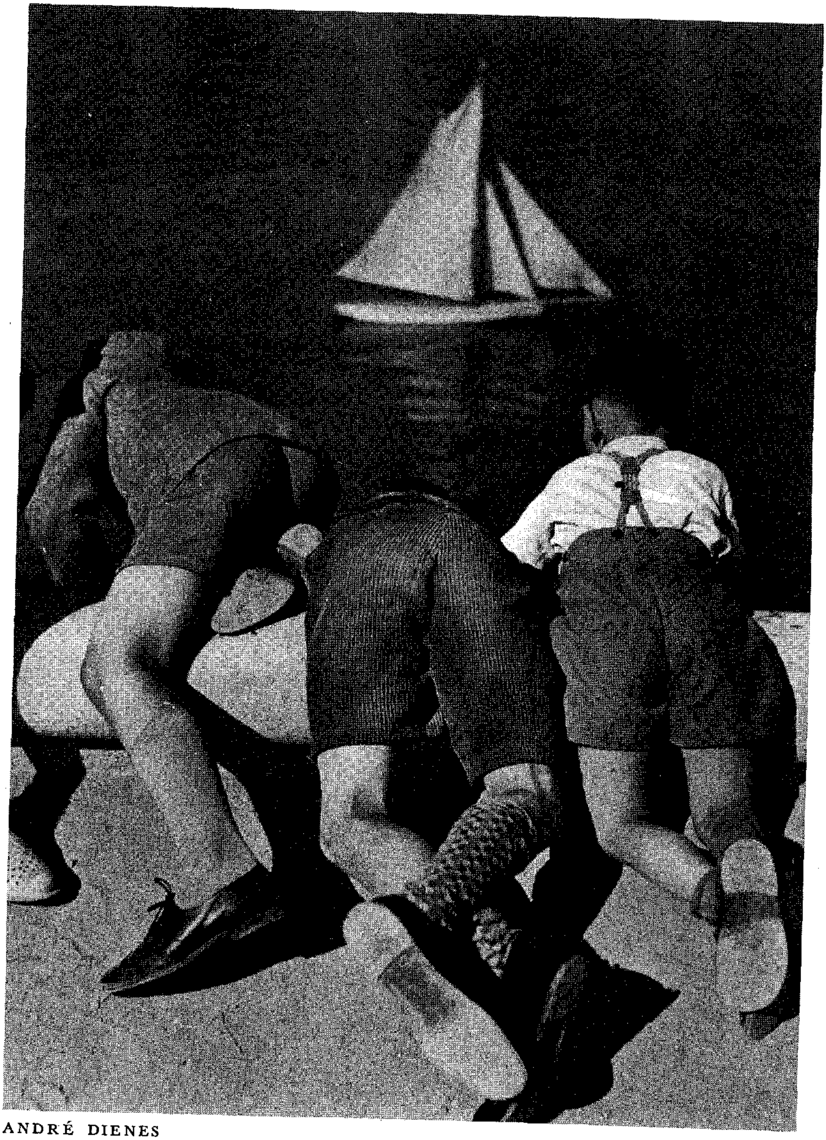


ANTE KORNIČ, LJUBLJANA



ERNÖ VADAS BUDAPEST

"ALL CREATED EQUAL"

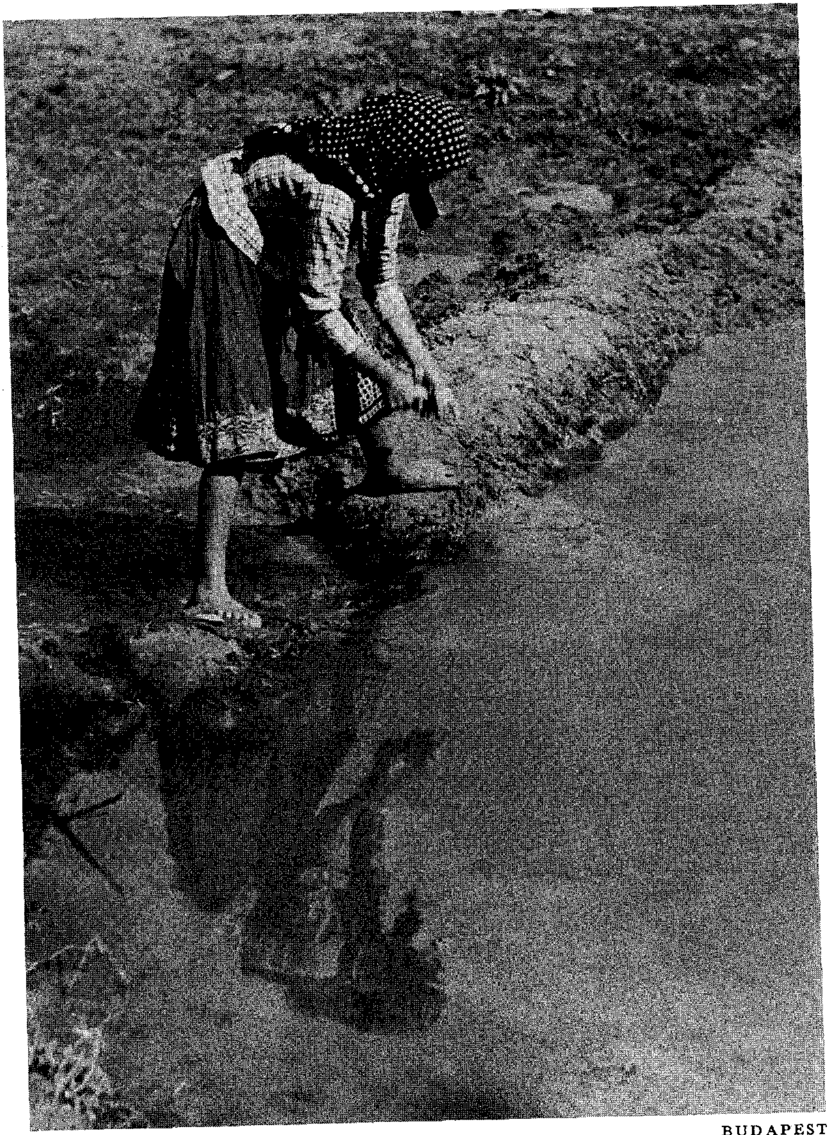


ANDRÉ DIENES

PARIS

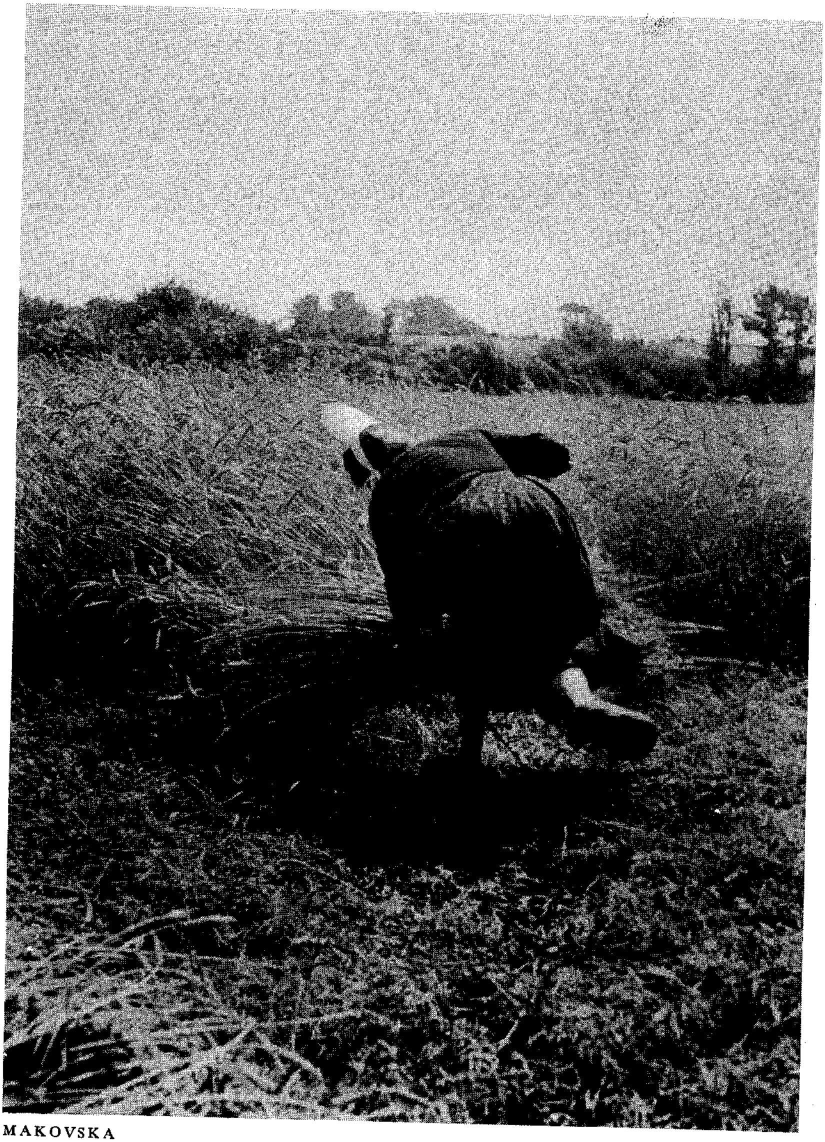
MODEL SAILBOAT

SEPTEMBER, 1937



DR. AJTAY-HEIM BUDAPEST

A CAKE OF SOAP

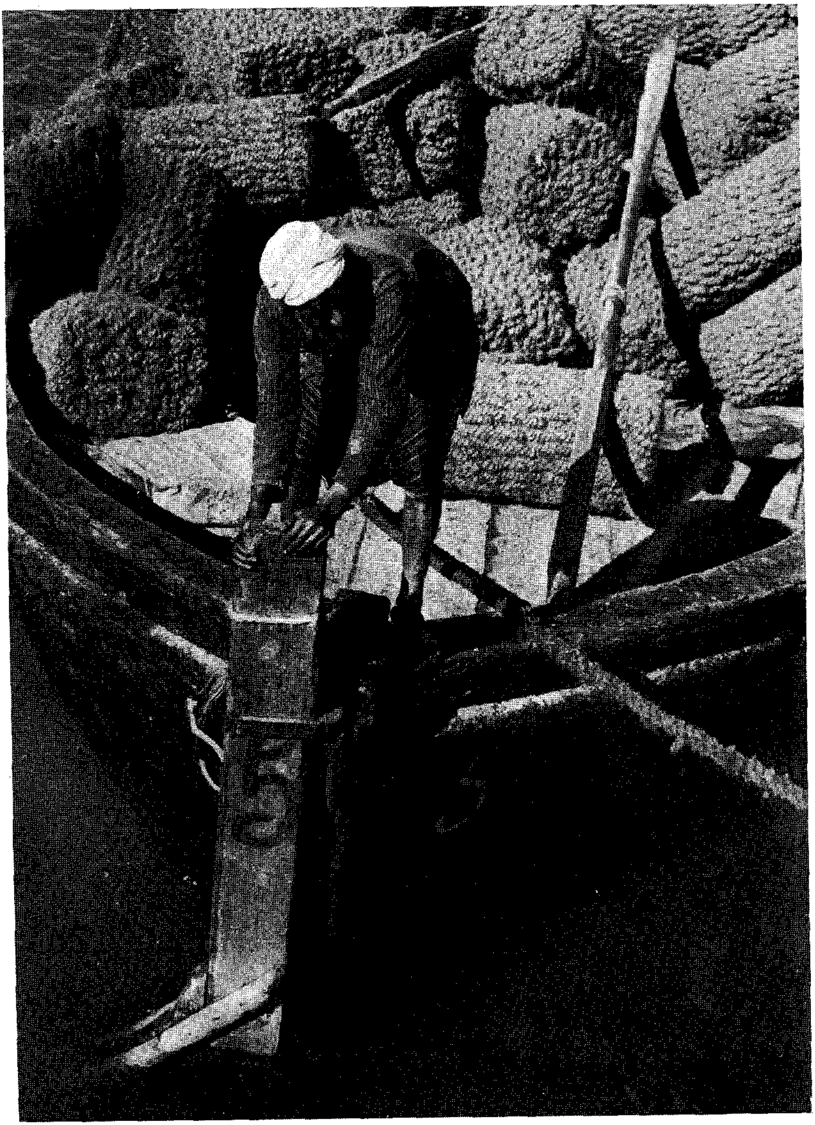


MAKOVSKA

PARIS

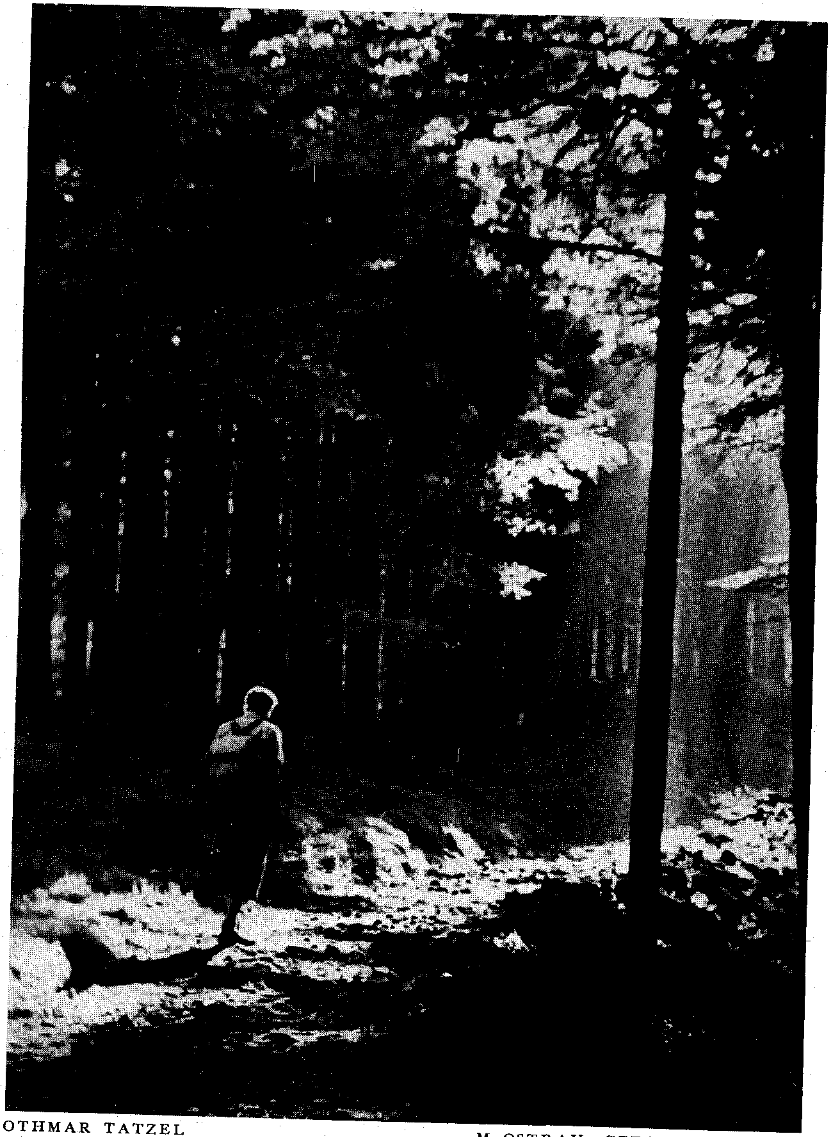
BRETON PEASANT

SEPTEMBER, 1937



ELI LOTAR PARIS

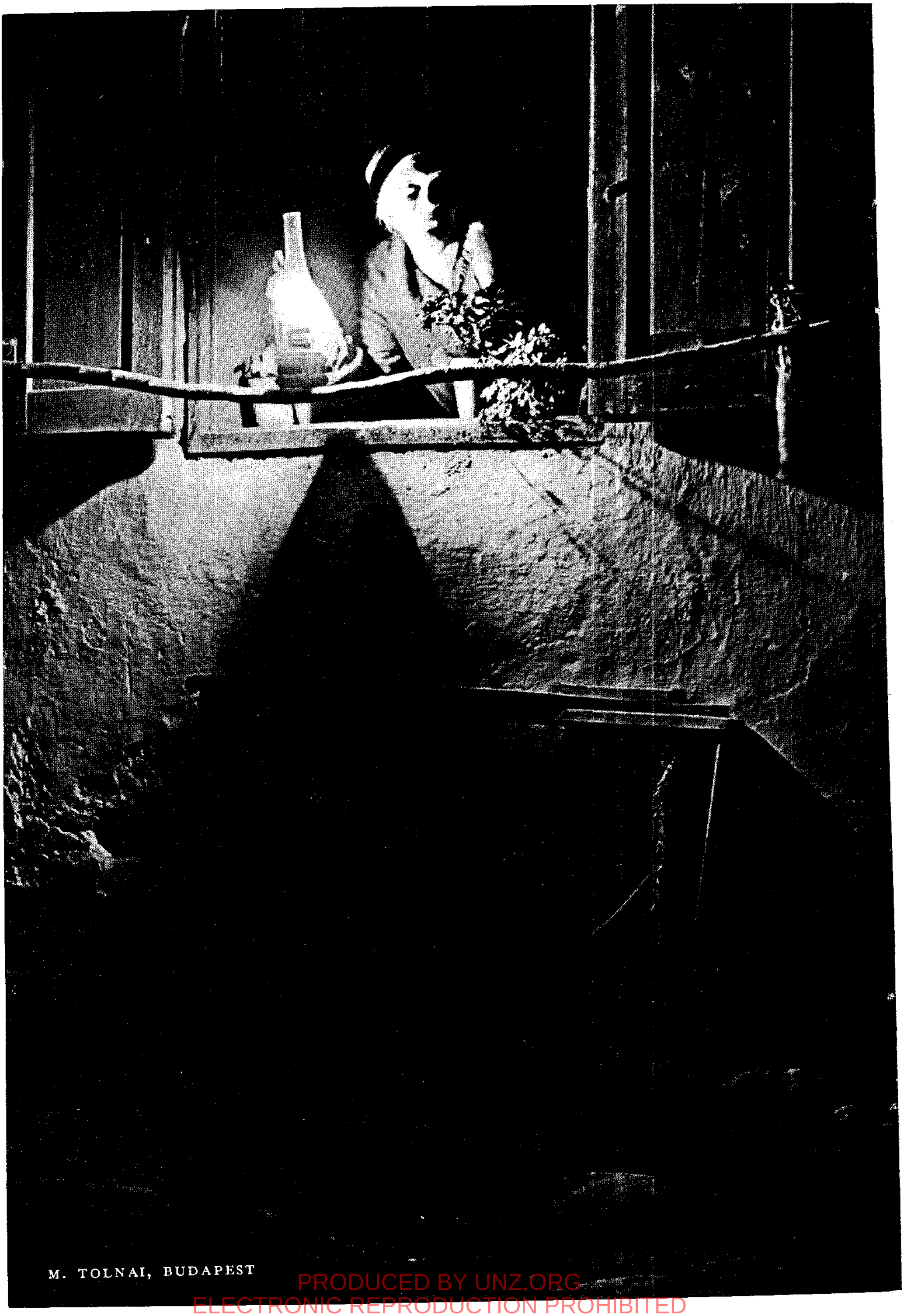
MOROCCAN HELMSMAN

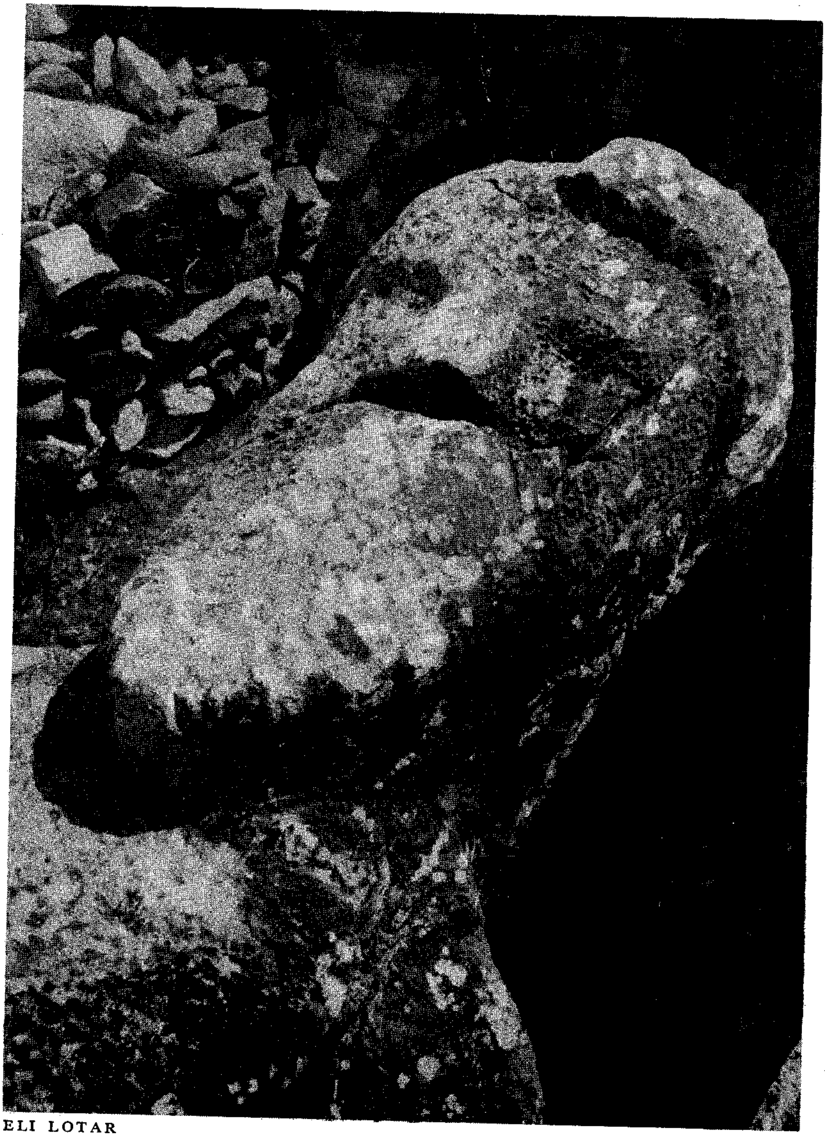


OTHMAR TATZEL M-OSTRAU, CZECHO-SLOVAKIA

HIKER'S PATH

SEPTEMBER, 1937


M. TOLNAI, BUDAPEST

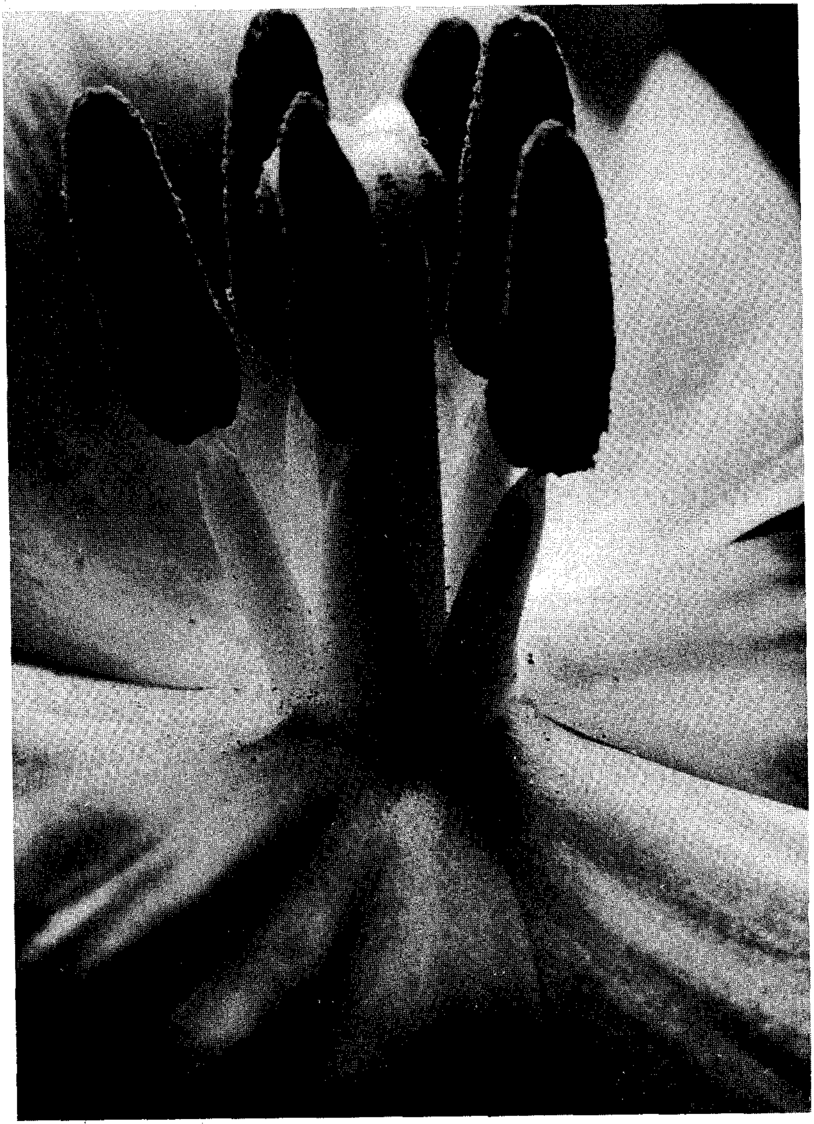


ELI LOTAR

PARIS

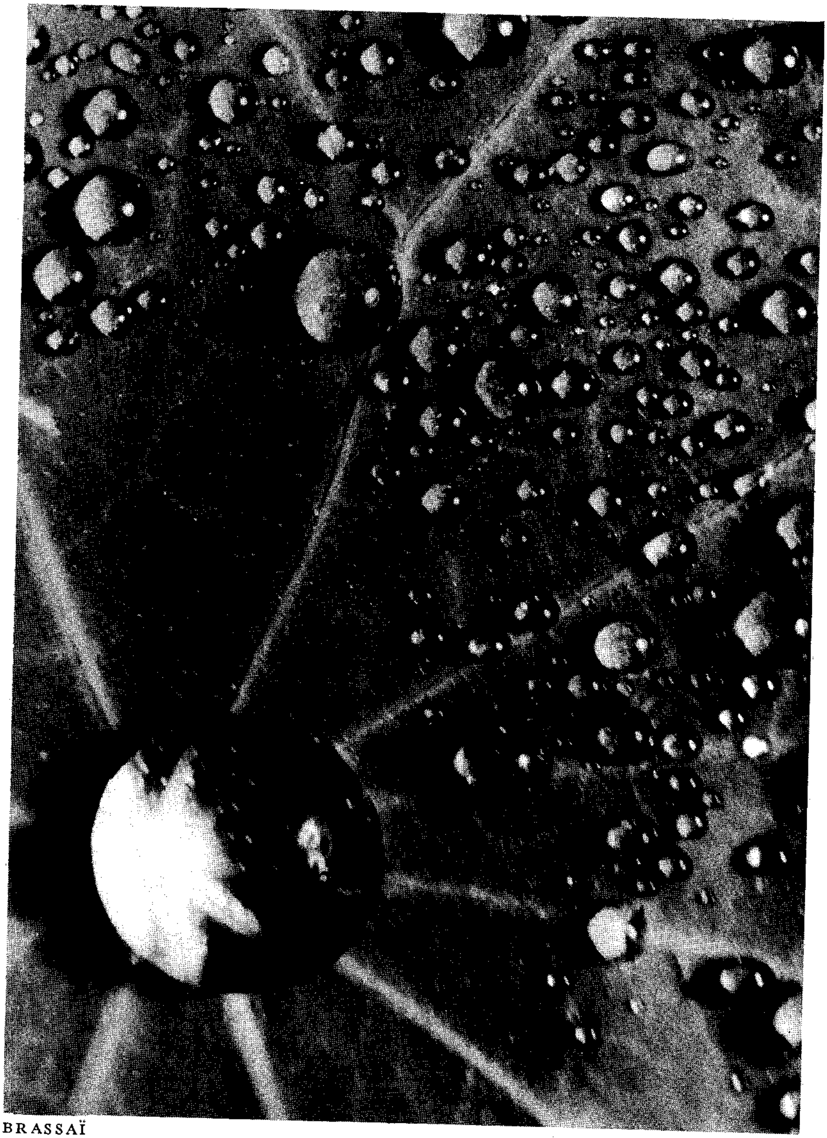
APOLLO IN THE ROCKS

SEPTEMBER, 1937



BRASSAÏ PARIS

TULIP PISTIL



BRASSAÏ

PARIS

DROPS ON A LEAF

THE AGE OF JEWELRY

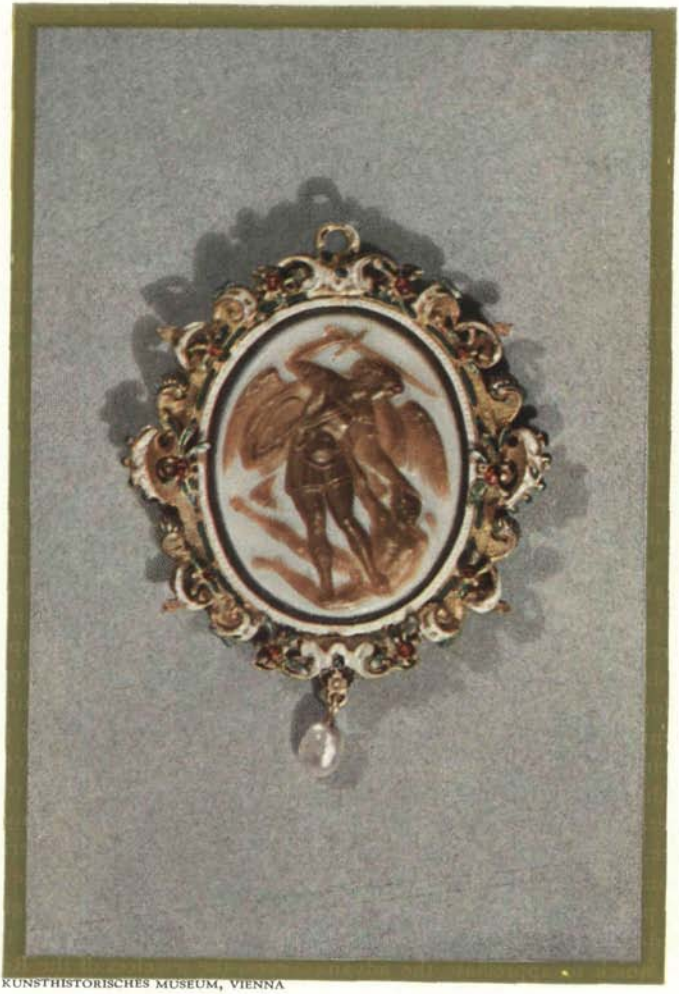
JEWELRY'S MOST BRILLIANT DAYS WERE THOSE OF THE RENAISSANCE

LOVERS of jewelry there have been in all ages since Genesis, but never has there been recorded such a widespread and all-consuming passion for jewelry, among men as well as women, as that which prevailed in Europe during the Renaissance. It was an apt enough symbol of the times. Here was an age marked by a re-birth of culture, a magnificent style of living, and unrestricted splendor of external display. It was inevitable that this urge for ostentation should have expressed itself, to major degree, in a lavish enthusiasm for jewelry.

Nor was personal display the only incentive to the acquisition of fine jewelry. There also existed at the time another and more practical motive. A general increase of wealth had taken place, but opportunities for safe investment in that financially unorganized period were few and far between. Hard-headed noblemen were therefore quick to appreciate the advantages of precious stones and ornamental jewelry as a convenient, readily convertible form of investment.

This double motive for the accumuation of fine jewelry, and the ample means at hand for its indulgence, sufficed to make the Renaissance a veritable "Age of Jewelry." But it was also an age of superlatively magnificent craftsmanship. For it just so happened that the period of jewelry's greatest encouragement was also its period of highest artistry.

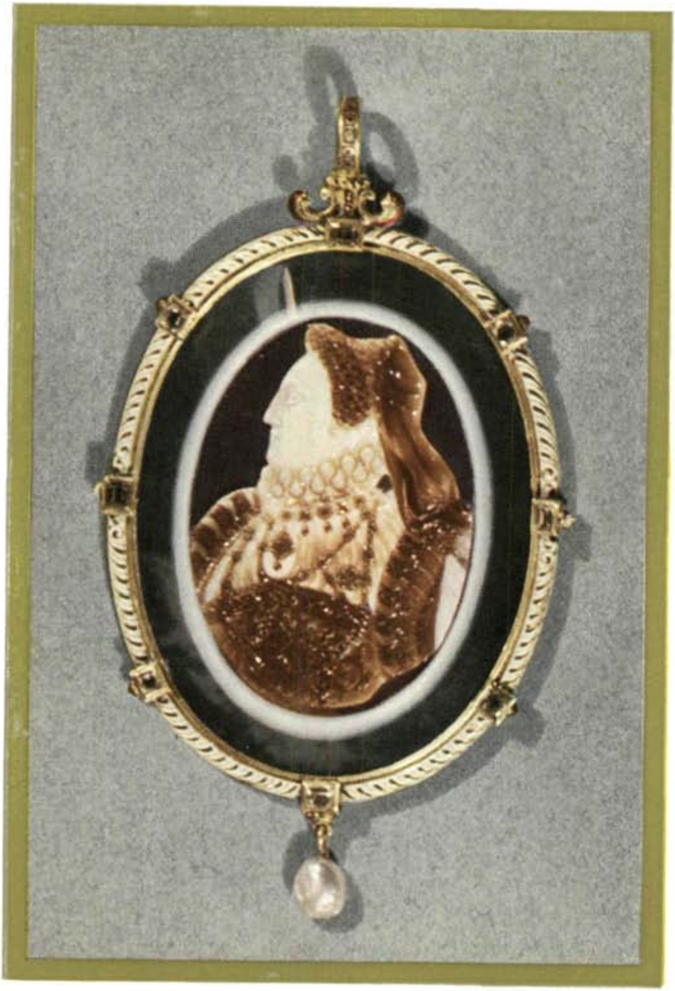
If, among the upper classes, jewelry was considered a means of displaying wealth, to the artist-jewelers it was a means of displaying talent. Their sense of color values was unexcelled, particularly in the juxtaposition of brilliant gems and polychrome enamels that provided the fundamental motif of the jewelry of the period. In their use of enamel for pictorial subjects, they contrived with remarkable skill to leave exposed tiny areas of gold, picking out in glittering points the weapons of a lord or the coiffure of a lady. And ornate though some of their designs may appear to modern eyes, the jewelers of the Renaissance have never been excelled in three qualities rarely found in combination in any other period—boldness of conception, richness of form, and extraordinary refinement of technique.



KUNSTHISTORISCHES MUSEUM, VIENNA

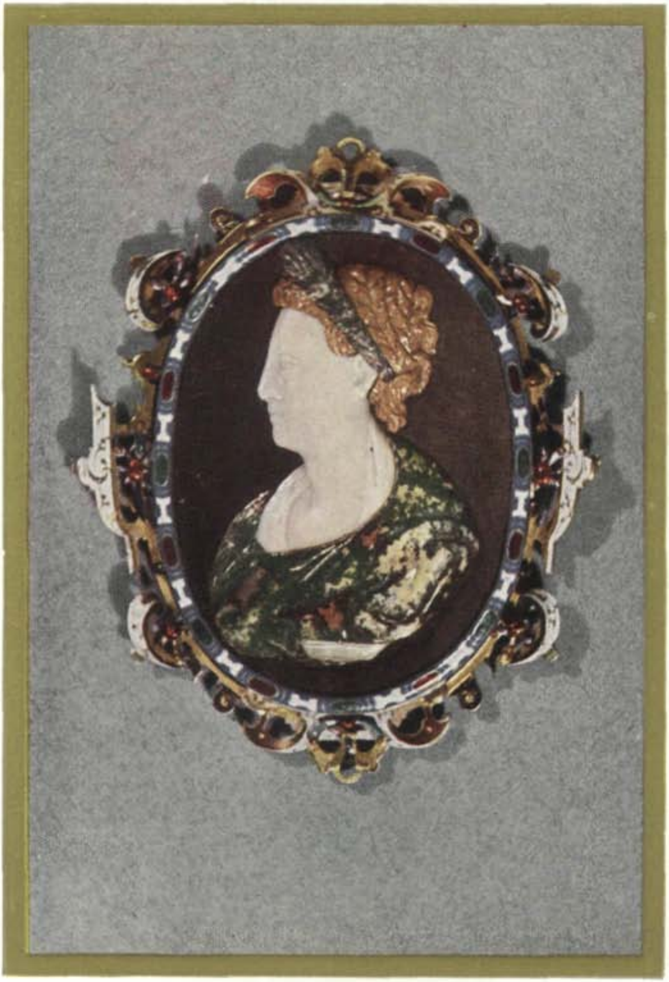
ARCHANGEL MICHAEL, ONYX CAMEO

The jeweler's craft was, historically, the most precocious of the arts. But it remained for the jewelers of the Renaissance to bring the technical skills of hammering, chasing, and above all, enameling to the stage of virtual perfection evidenced in the pieces shown here.



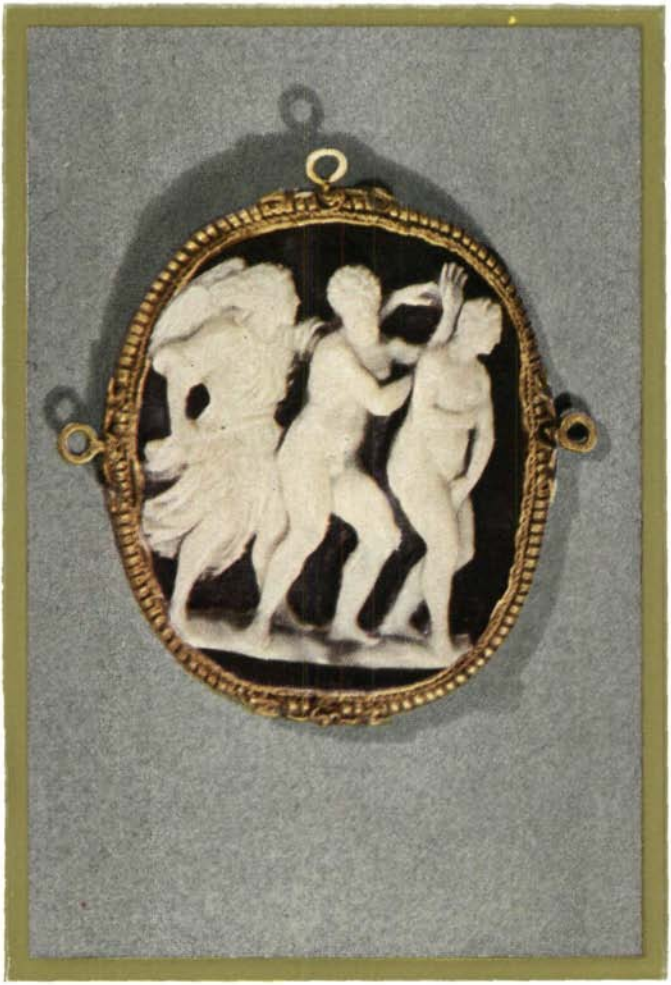
QUEEN ELIZABETH, ONYX CAMEO

All avid collectors are supposed to be a little mad. The Emperor Rudolph II (1552-1612), with his hereditary tendency to insanity, was at the last quite mad, and he was one of the greatest collectors of all time. This Renaissance jewelry was originally collected by him.



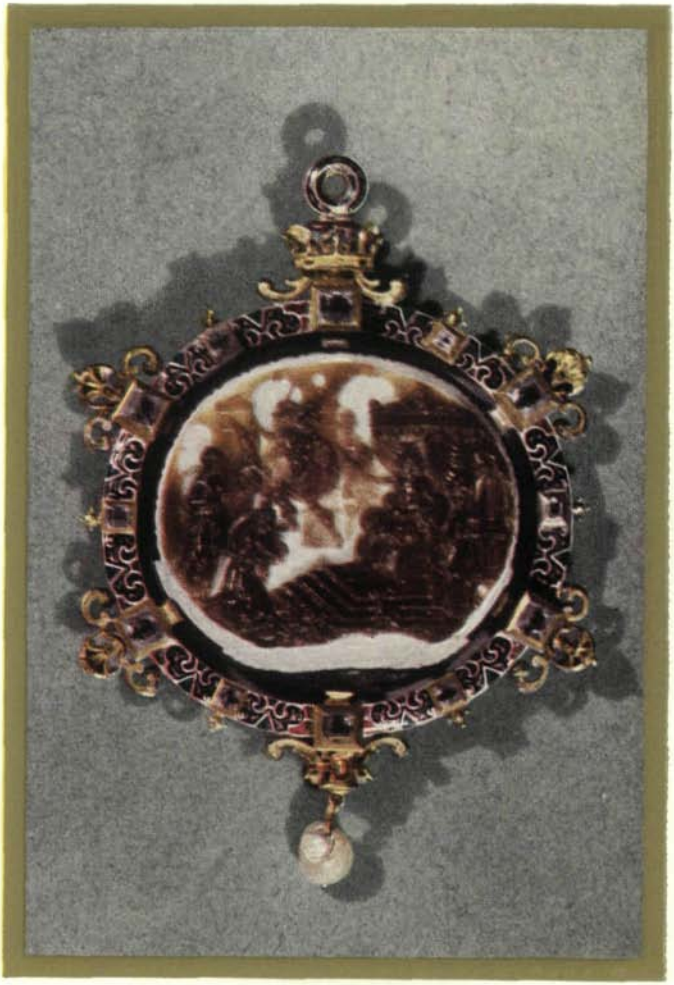
CERES, STONE MOSAIC

Next to astrology, jewelry was the favorite obsession of Rudolph II. With the magnificence of an Emperor, he collected from all Europe not only outstanding examples of jewelry but also expert jewelers for his goldsmithery and stone-cutting workshops at Vienna and Prague.



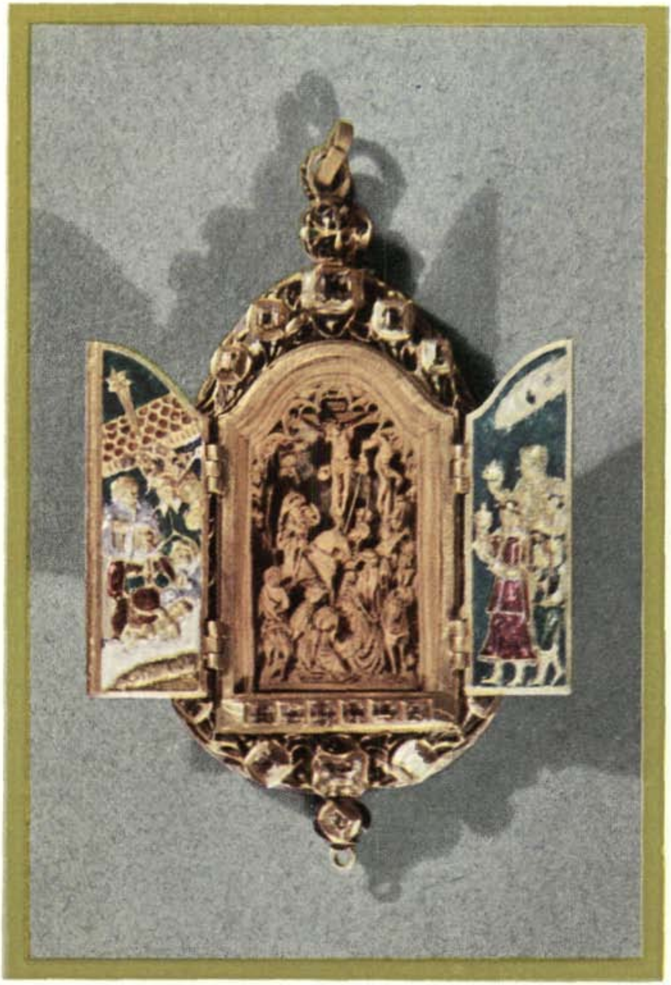
EXPULSION FROM EDEN, ONYX CAMEO

Only a minute fraction of the vast Renaissance jewelry production remains today. Not all the vanished pieces were lost, strayed or stolen. Most were eventually broken up and re-fashioned, sacrificed to the human foible that makes the last fashion but one the most shunned.



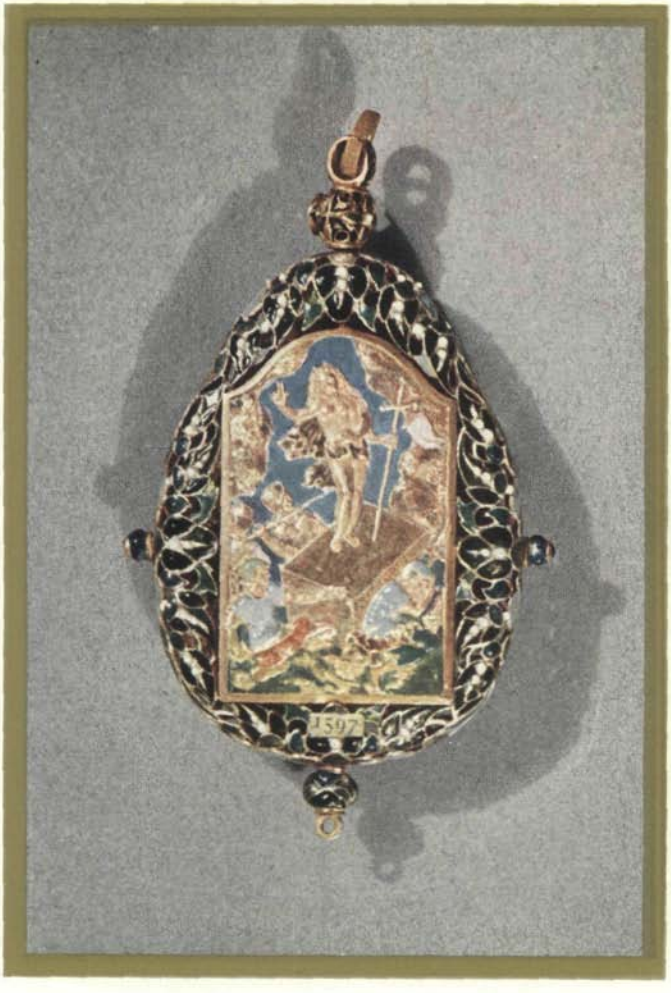
SOLOMON'S JUDGMENT, ONYX CAMEO

Just as many a second-rate artist, with incredible egotism, painted his second-rate picture over the canvas of an old master, jewelers of a later period blithely broke up much of the magnificent jewelry of the Renaissance and re-worked it into their own inferior designs.



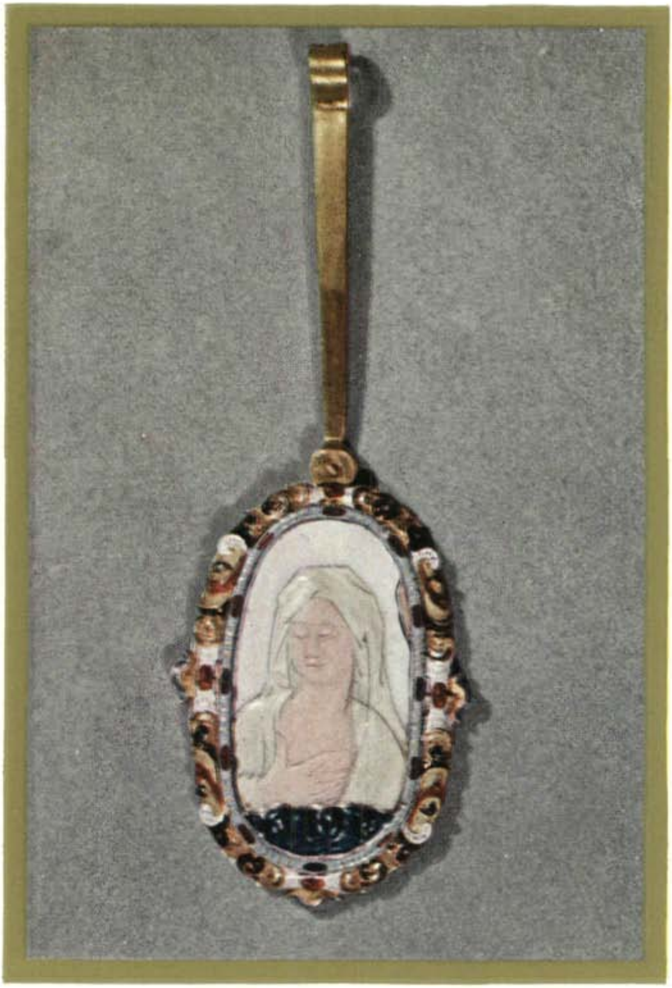
16TH CENTURY PENDANT: OBVERSE

Shown above and opposite are the two sides of a gold enamel pendant. On the side shown above, the tiny hinged doors with figures in gold open to reveal a representation of the Crucifixion, minutely carved in beechwood. On the other side is depicted the Resurrection in gold.



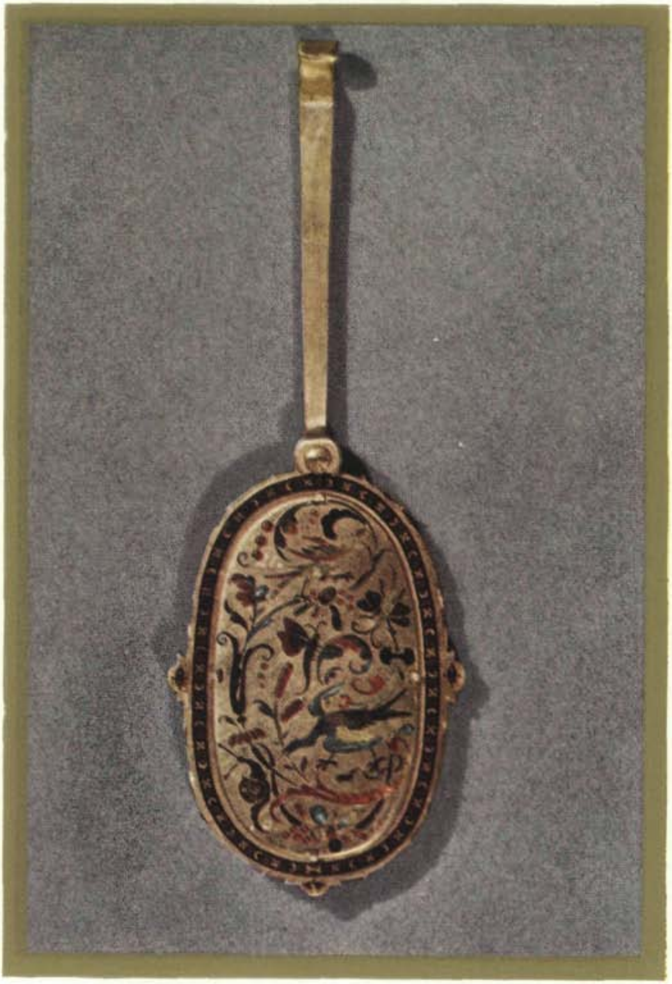
16TH CENTURY PENDANT: REVERSE

The aura of glamor that surrounds Italian art has made it almost a custom to attribute the finest jewelry of the Renaissance to Italy, but careful study of existing pieces indicates that the production of this period reached its highest point in 16th century Germany.



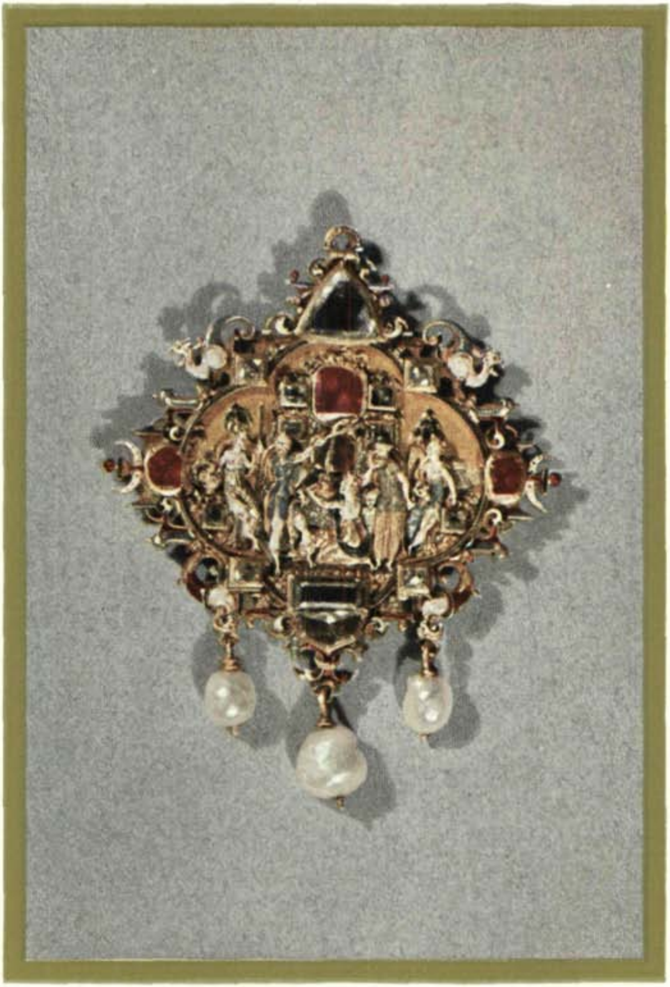
16TH CENTURY CAMEO: OBVERSE

The "little masters" of Renaissance jewelry—so termed because of the small medium in which they worked—included among their ranks the foremost artists of the period. Even such titans of art as Dürer and Holbein did not disdain to create numerous designs for jewelry.



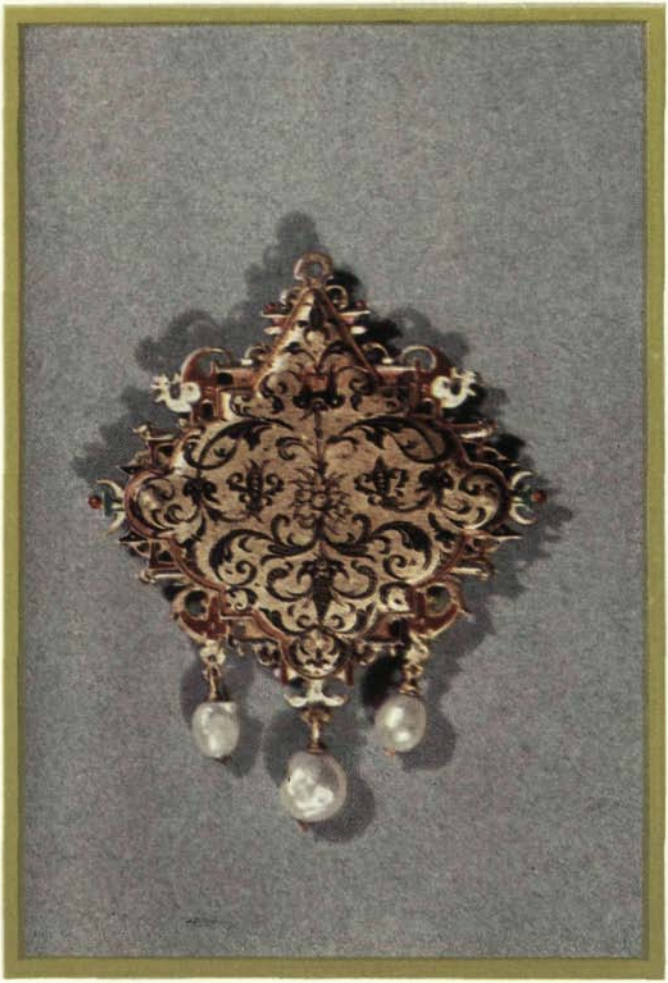
16TH CENTURY CAMEO: REVERSE

The versatility of great artists like Cellini has never since been equaled. Cellini's interest in jewelry was professorial as well as professional, his treatise on the subject remaining an outstanding exposition today. The piece on page 98 was once attributed to him.



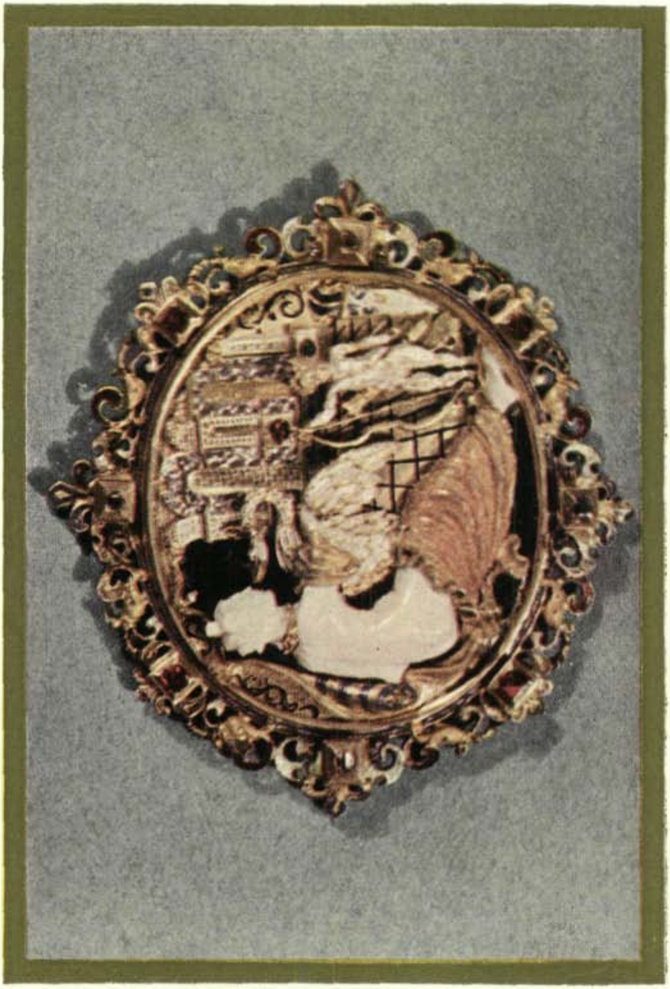
GOLD ENAMEL PENDANT: OBVERSE

None of these jewels could have been created without the discovery, long before Christ, that two pieces of metal can be joined together by the use of a third piece melting at lower heat. From this starting point, all subsequent triumphs of goldsmithery were made possible.



GOLD ENAMEL PENDANT: REVERSE

"Diamond cut diamond" could have been a phrase of ancient origin, for the method of forming a facet by rubbing two diamonds together was discovered in India in early times. But it was not until 1475 that Louis de Berghem learned how to cut diamonds with diamond dust.



KUNSTHISTORISCHES MUSEUM, VIENNA

LEDA, CALCEDON WITH GOLD ENAMEL

The chief value of Renaissance jewelry is, and was, extrinsic. Thus, the Countess of Chateaubriand was able to vent her spite when supplanted in the favor of Francis I by a new mistress. Asked to return the jewels he had given her, she did so—melted down into ingots.

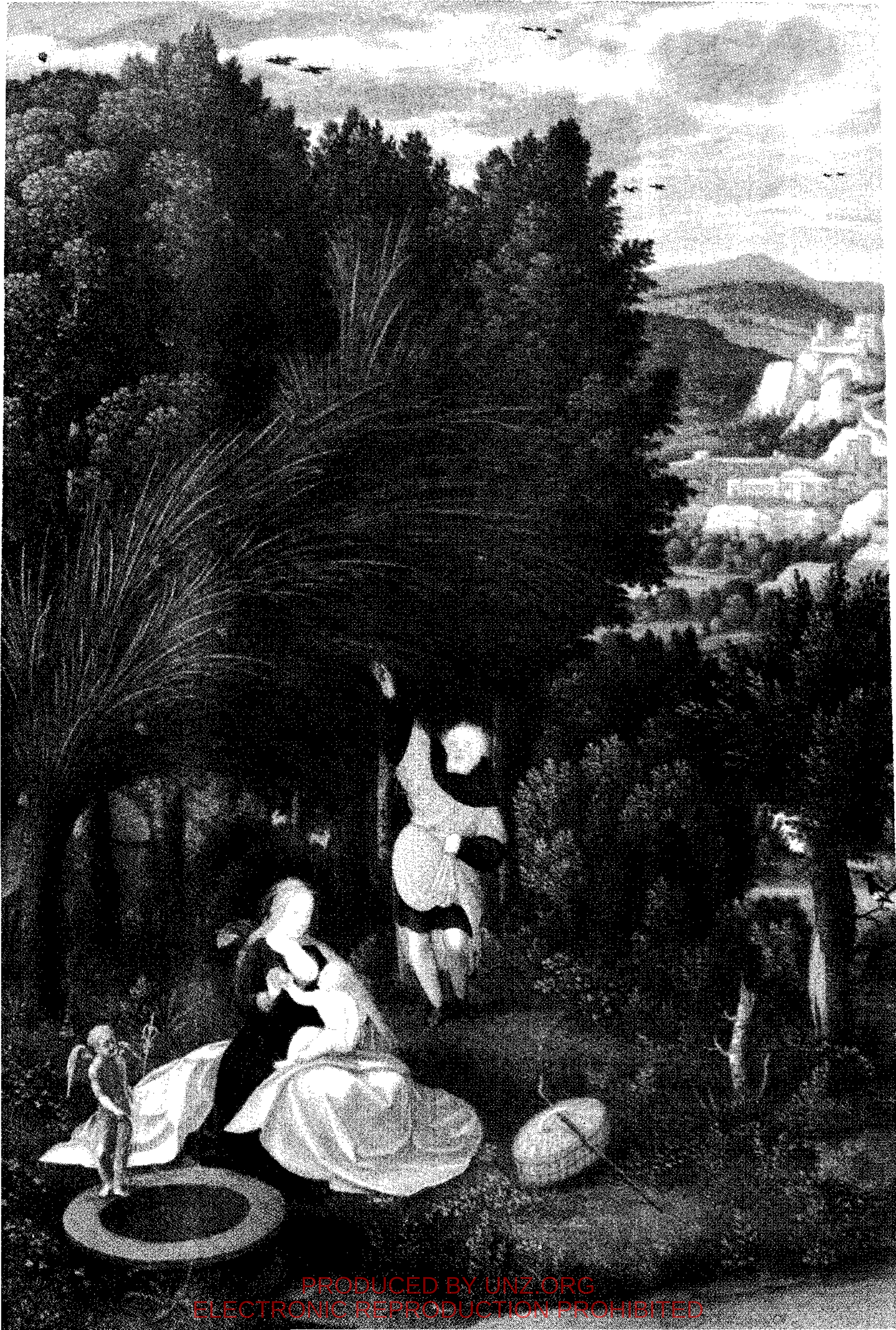
THE FLIGHT TO EGYPT

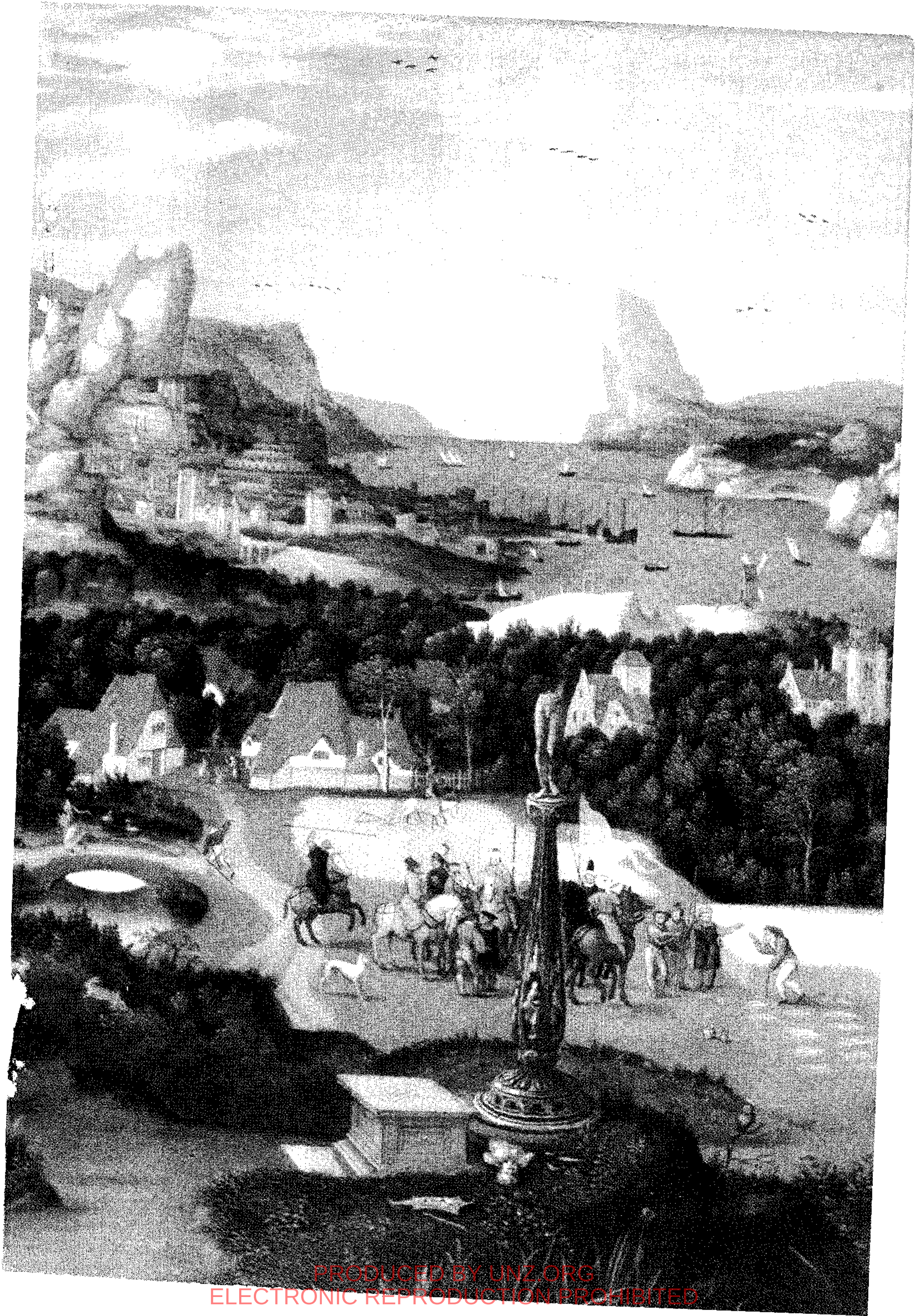
By "MEISTER DER WEIBLICHEN HALBFIGUREN"

(SIXTEENTH CENTURY)

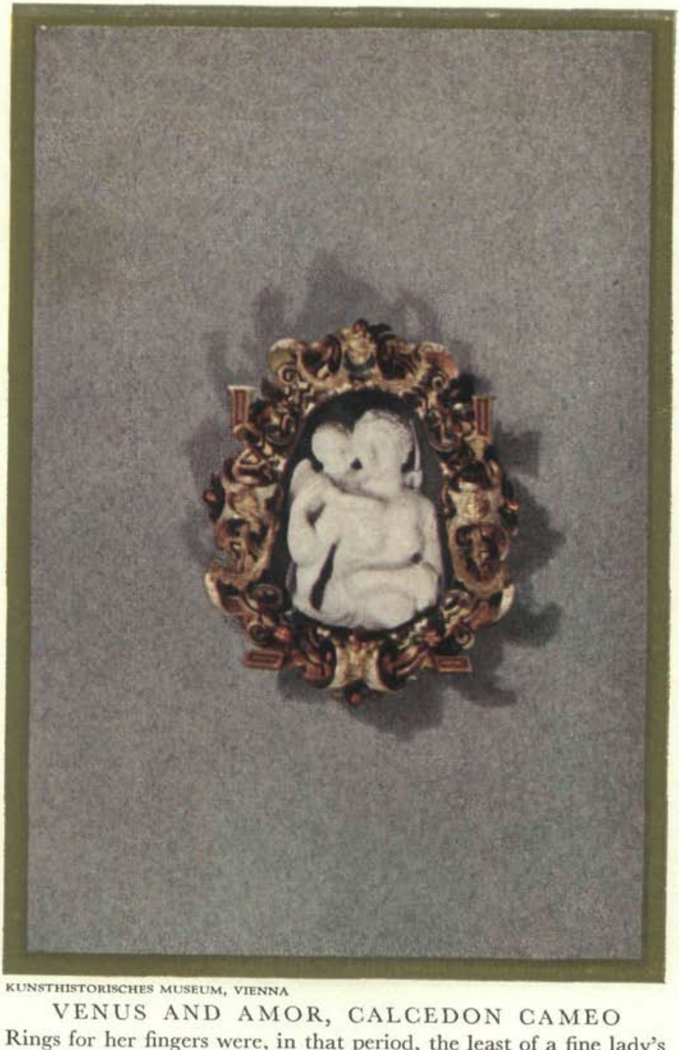
(KUNSTHISTORISCHES MUSEUM, VIENNA)

Concerning the man who painted the landscape reproduced overleaf, scarcely one shred of absolute fact, not even his name, has come down to us. Known today only by the derivative signature used above—"Master of the Female Half Figures"—it is virtually certain that he lived during the early 16th century, it is probable that he was of Brabant or Flemish birth, it is possible that he studied in Brussels. But the rest is sheer guesswork. If there is doubt about the life of the artist, however, there is no question about the exceptional merit of the art. Especially in his many half-length portraits of women, from which is derived his pseudonym, he exhibited a talent of the highest order. Poetically enough, the dark shades of anonymity afford a far more fitting epitaph than that which any ink-stained biographer might have penned. Put into words, it might read like this: "Here lies a nameless genius, unknown to the world except through what is revealed of him in his heritage of paintings—and these manifest a childlike sincerity, a rare sensitivity, and an acute power of penetration."





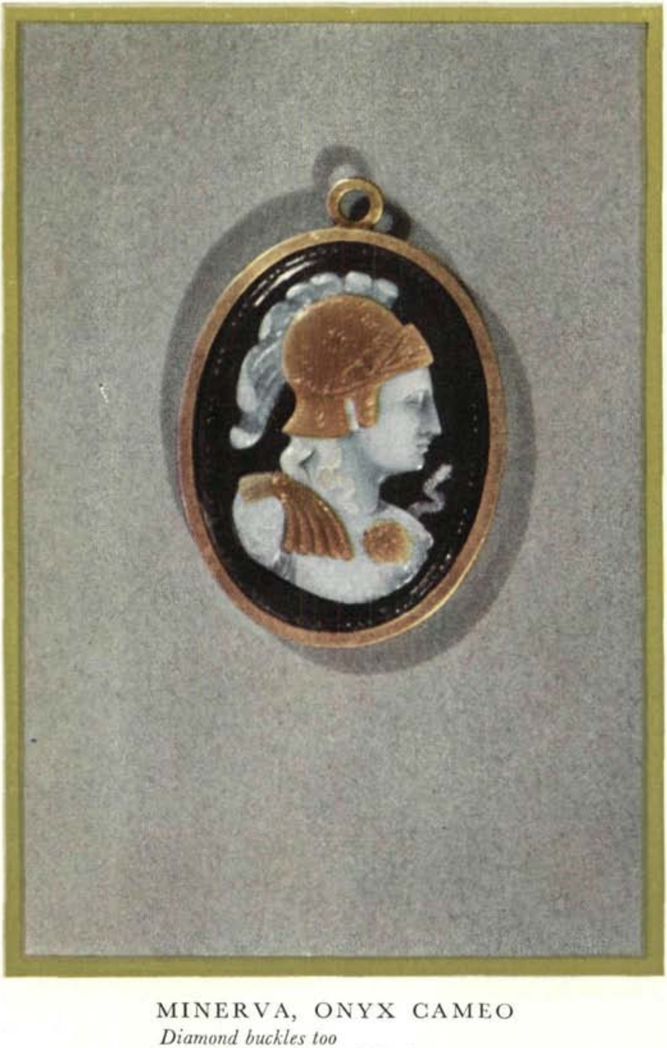
Attempts have been made to identify "*Meister der Weiblichen Halbfiguren*" as Jean Clouet or Lucas de Heere, but such theorizing is almost as futile as the perennial effort to attribute the plays of Shakespeare to Francis Bacon. It is more appropriate, and certainly at least as accurate, to ascribe the works of this artist to a man who simply passed his life so tranquilly and humbly that he left no mark of his personality upon the records of his time. It is even possible that this was the result the artist himself intended to achieve. One can easily imagine him as painting not in any professional capacity but only for his own pleasure and that of others, with the express thought of leaving behind his unsigned works as the sole reminder of his genius.



KUNSTHISTORISCHES MUSEUM, VIENNA

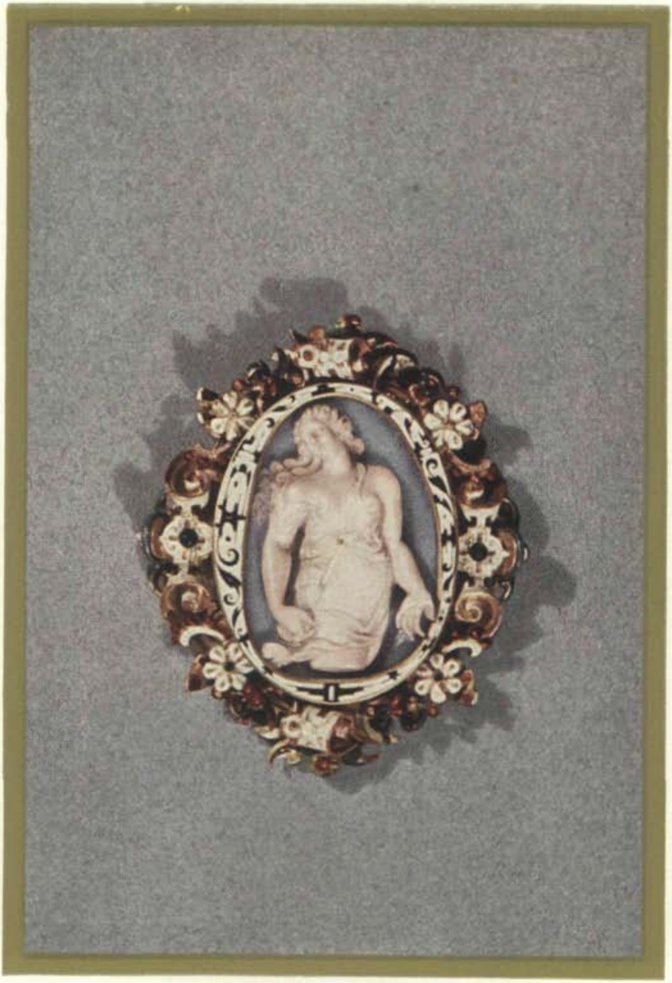
VENUS AND AMOR, CALCEDON CAMEO

Rings for her fingers were, in that period, the least of a fine lady's jewelry requirements. The list of ladies' ornaments quoted on the following two pages from Evelyn's poem, *Mundus Muliebris*, gives a rhymed hint of the amazing extent to which jewelry was worn.



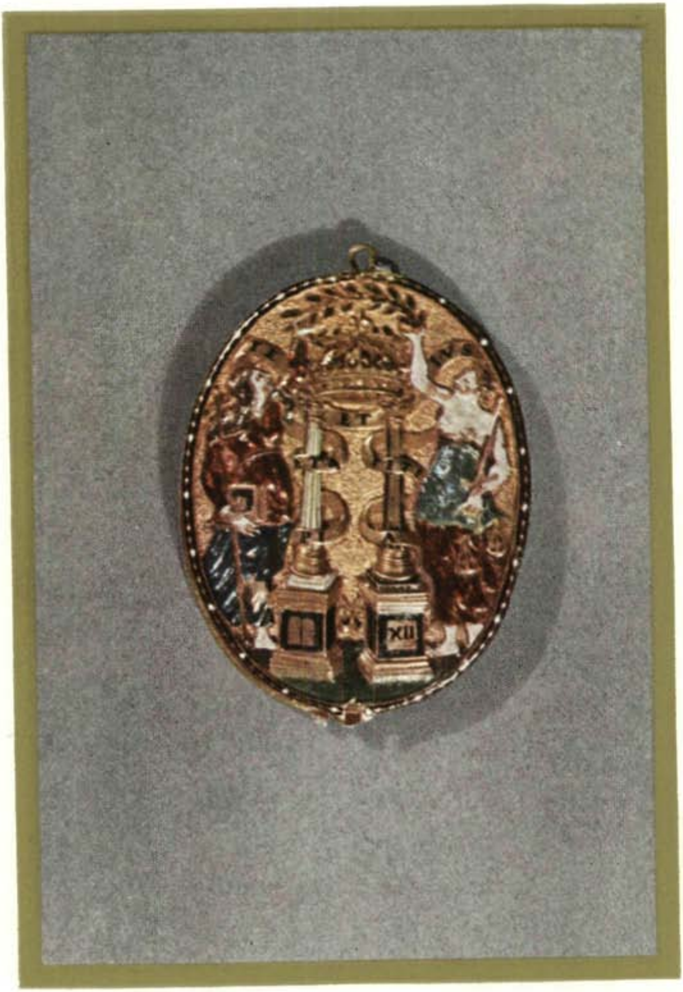
MINERVA, ONYX CAMEO

Diamond buckles too
For garters, and as rich for shoo;
A manteau girdle, ruby buckle,
And brilliant diamond rings for knuckle.



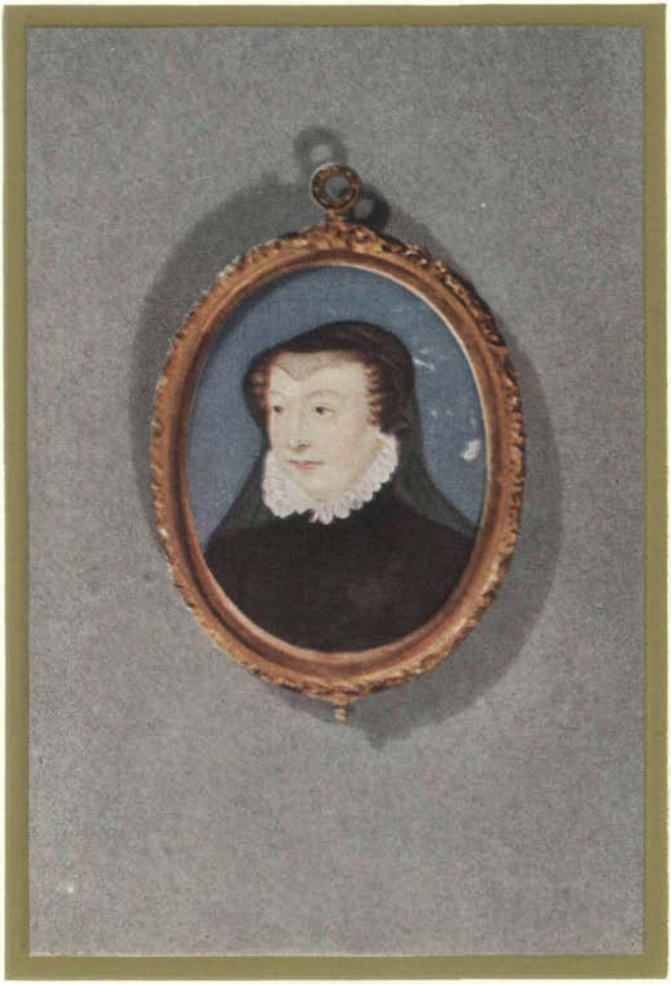
LUCRETIA, AGATE CAMEO

Then turquois, ruby, emrauld rings
For fingers, and such petty things
As diamond pendants for the ears
Must need be had, or two pearl pears.

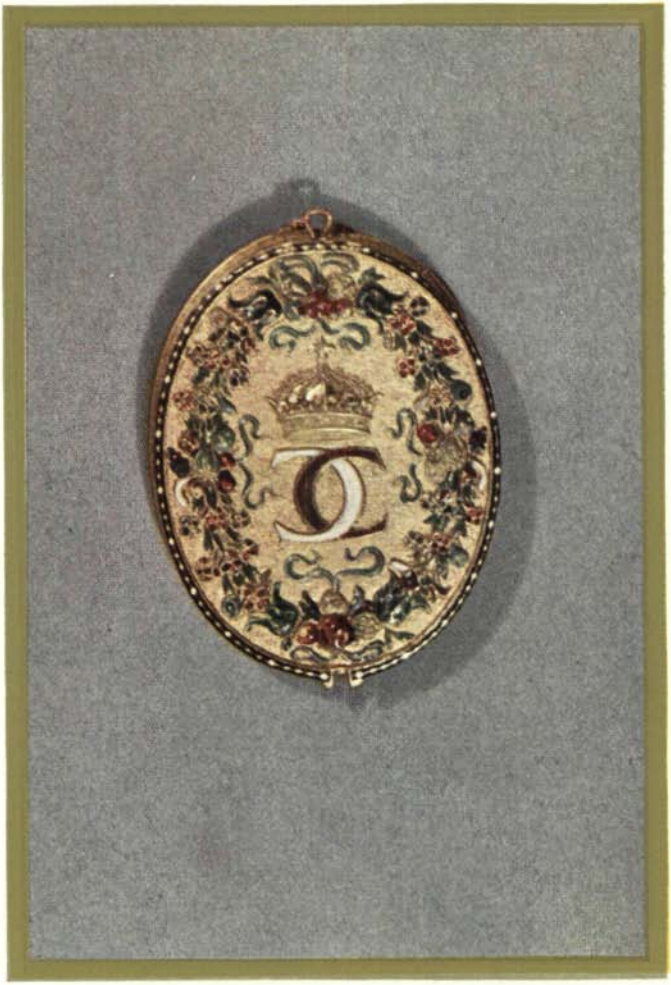


THE FOUR SECTIONS . . .

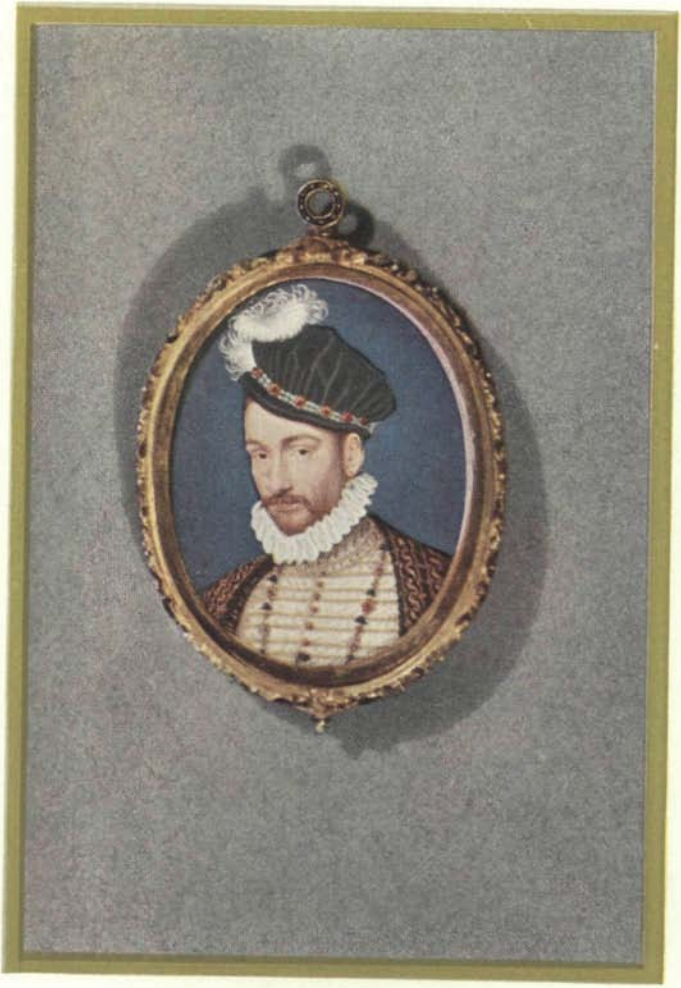
One of the outstanding pieces of Renaissance jewelry, requiring this and the following three pages to show in its entirety, is the double pendant of Charles IX. It was a work of collaboration of the goldsmith, François Dujardin, and the miniaturist, François Clouet.



. . . OF THE FAMOUS DOUBLE PENDANT . . .
The superbly enameled cover, opposite, depicting Faith and Justice, fits over the miniature of Charles' mother, Catherine de Medici, above. The other half of the double pendant consists of the initialed cover on page 104 which fits over the miniature of Charles on page 105.

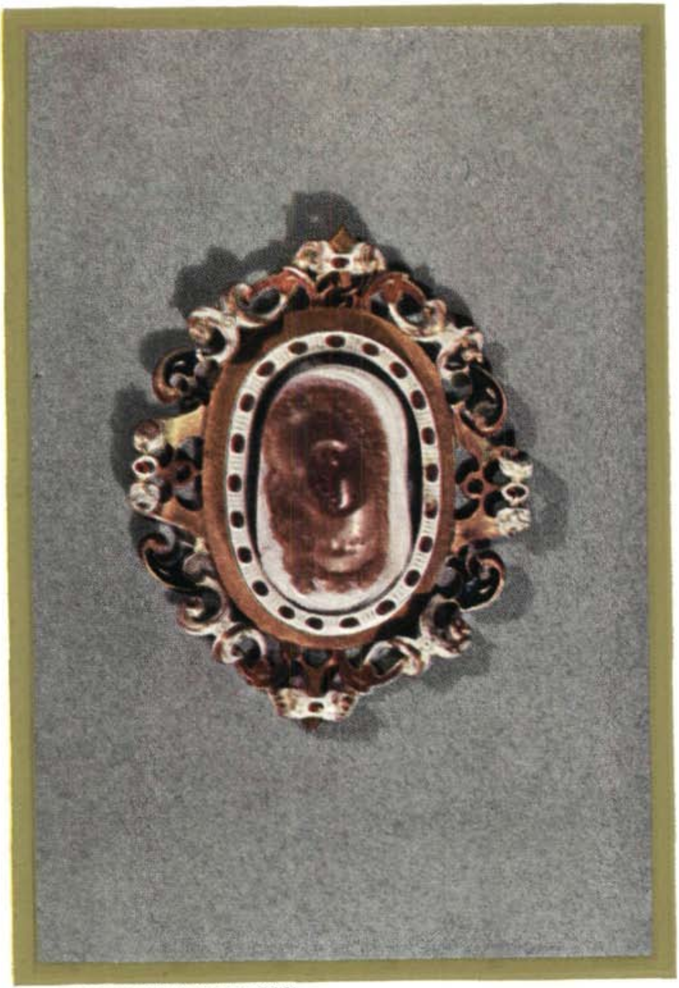


. . . HONORING CATHERINE DE MEDICI . . .
Monarchs were natural victims of the prevailing passion for jewelry. Henry VIII was an ardent collector of jewelry, as well as of wives. The *pièce de résistance* of his collection was "The Three Brothers" —a great square diamond set off by three rubies and four pearls.



. . . AND CHARLES IX OF FRANCE

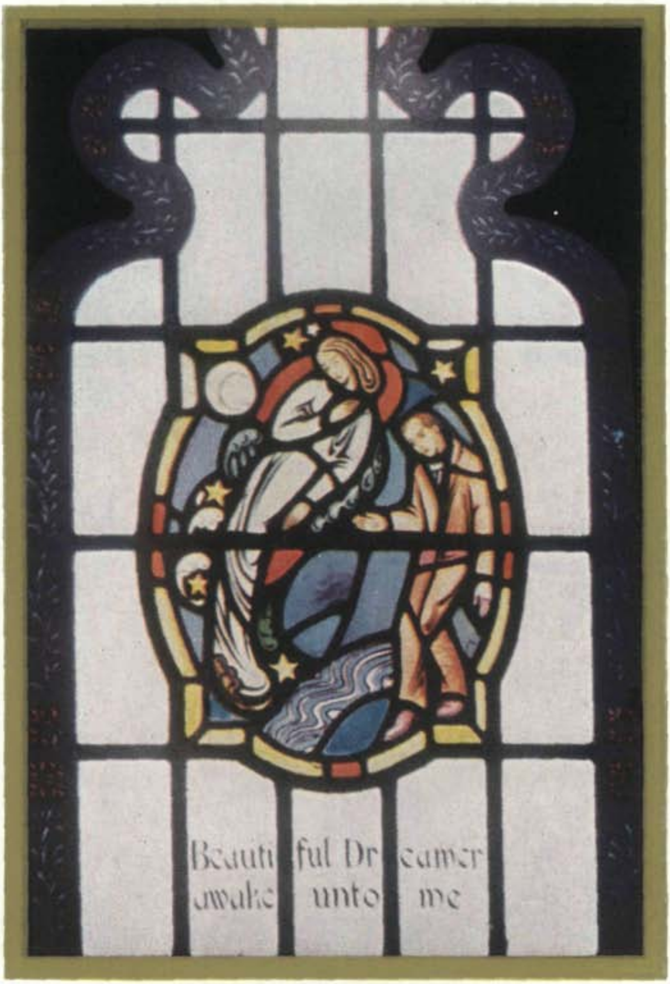
The taste of Anne Boleyn, second in the series of the wives of Henry VIII, was evidently more frivolous than that of her husband. One of her prized possessions was a complicated pendant whistle of gold in the shape of a pistol, containing golden tooth- and ear-picks.



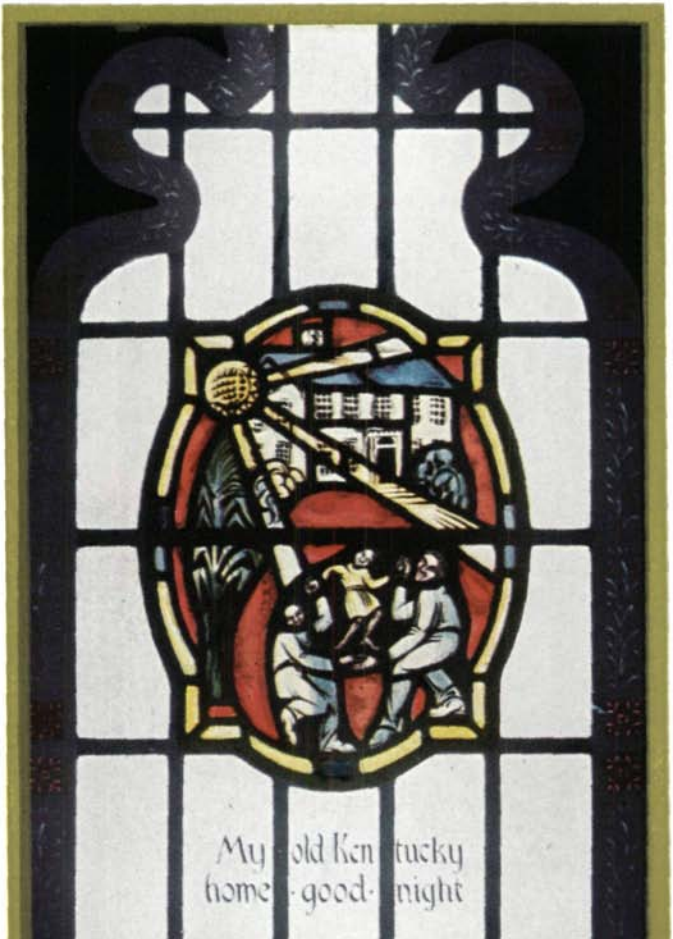
KUNSTHISTORISCHES MUSEUM, VIENNA

HOLY VIRGIN, AGATE CAMEO

Pessimists who look for symbols of the commercialization of the arts will find one in the thought that, whereas the goldsmith of the Renaissance was recognized as the brother of the sculptor, by the next century he had already become more famous as the father of banking.

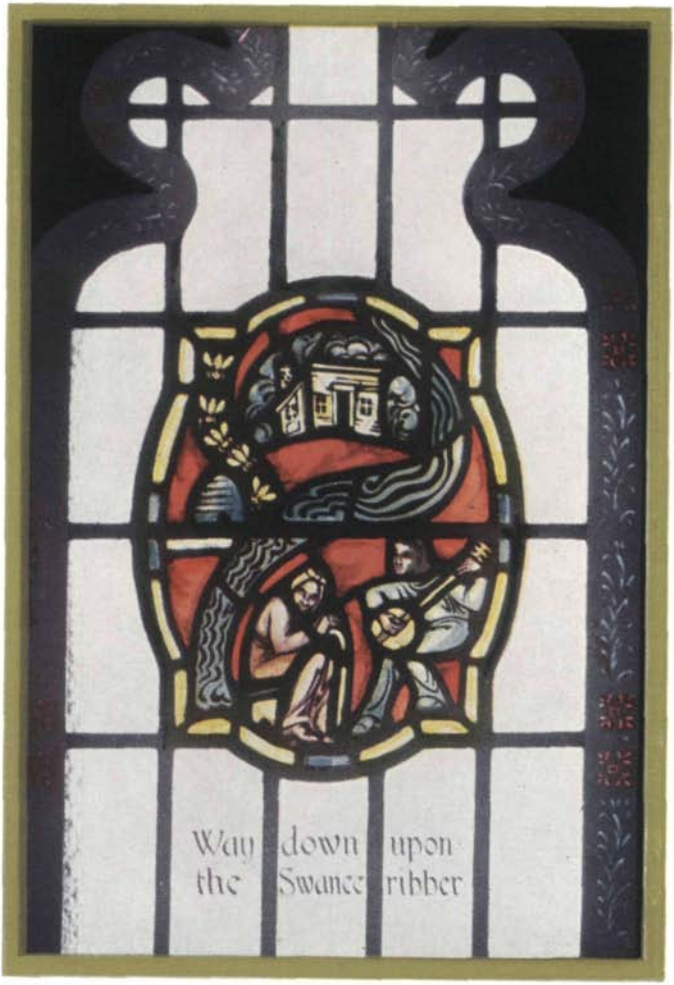


STEPHEN FOSTER'S "FROZEN MUSIC" . . Never was Ruskin's phrase more apt than in its application to Charles Connick's stained glass windows in the Stephen C. Foster Memorial of the University of Pittsburgh. Of the twelve windows in the Memorial, four are shown on this and the pages immediately following.



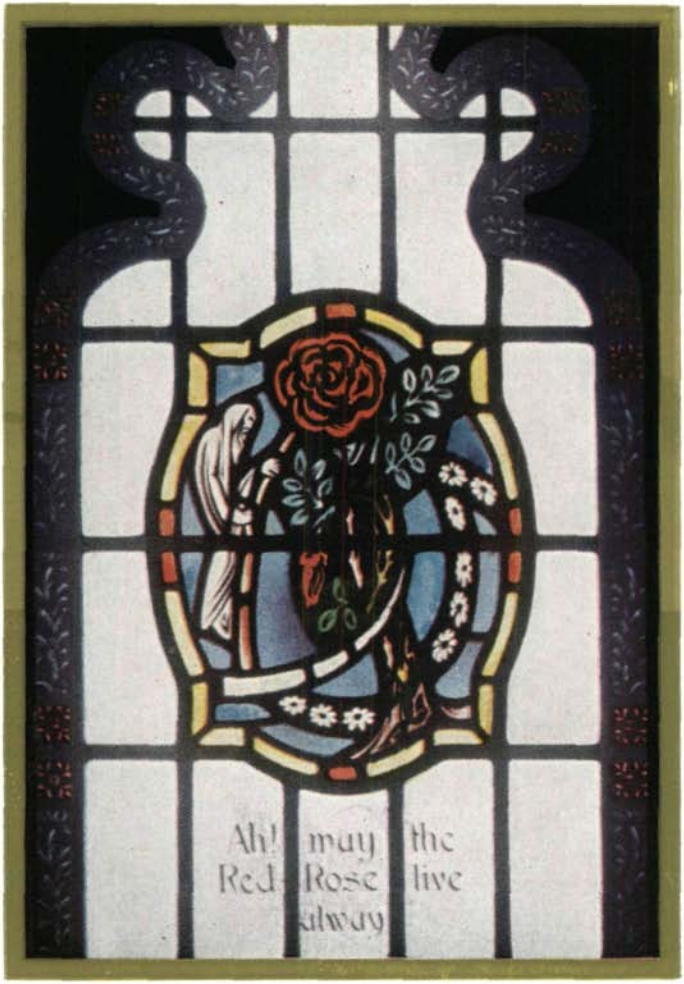
. . . ITS EMOTIONAL APPEAL . . .

Natural victims to its spell, Kentuckians made this their state song. But few of them are aware that Foster's projected title was "Poor Uncle Tom" and that, save for a last-minute change of heart, the song's hero would have been Uncle Tom and not "my old Kentucky home."



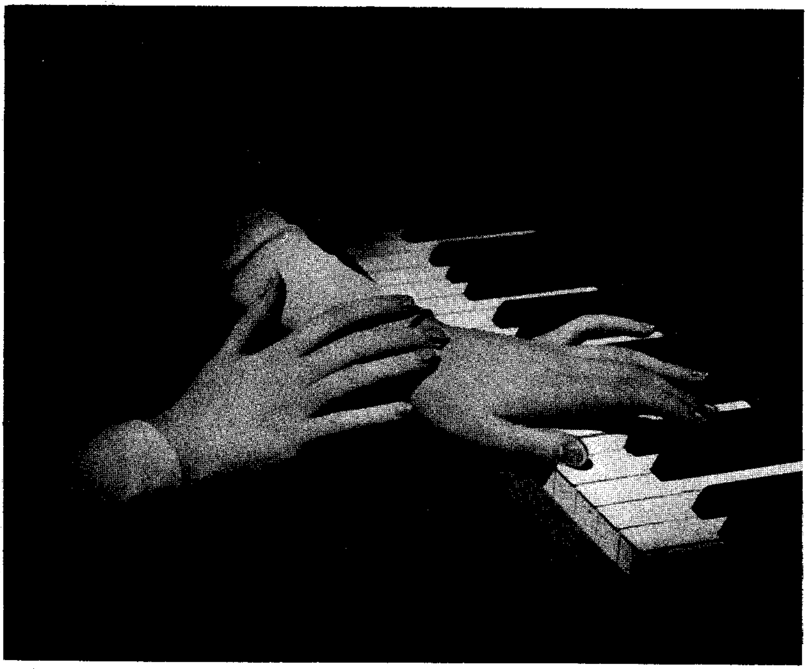
. . . ITS HOMELY SENTIMENT . . .

Expressing a universal longing of rich and poor alike, *Old Folks at Home* is one of the favorite songs of all time. Foster originally had it "Way Down Upon the Pedee Ribber" but changed it to "Swanee" after asking his brother for a more musical name for a river.



. . . ITS FATALISTIC PATHOS

The symbol of Father Time threatening the red rose with his scythe *is considered by some an exaggeration of the meaning of this lesser* known song of the "American Troubadour," but Foster disciples defend it as a faithful representation of the essential point of the song.

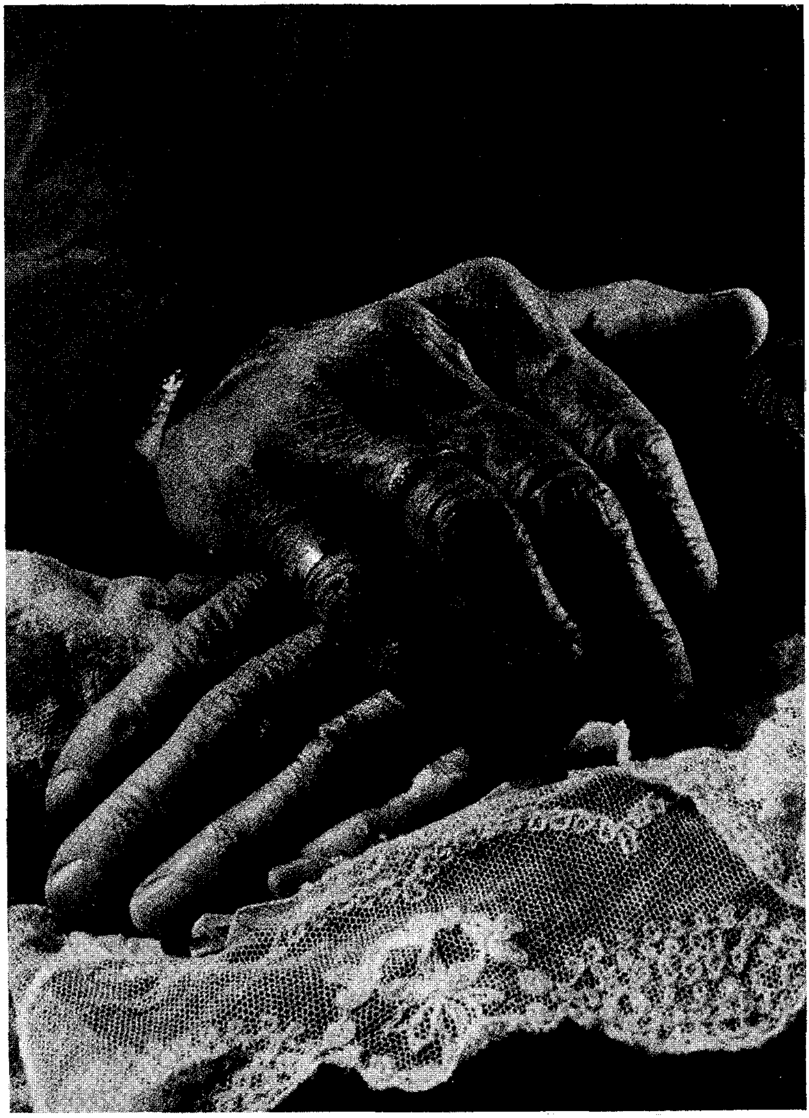


BRUNO NEW YORK

Hands

a Series of Seven Photographs

SEPTEMBER, 1937

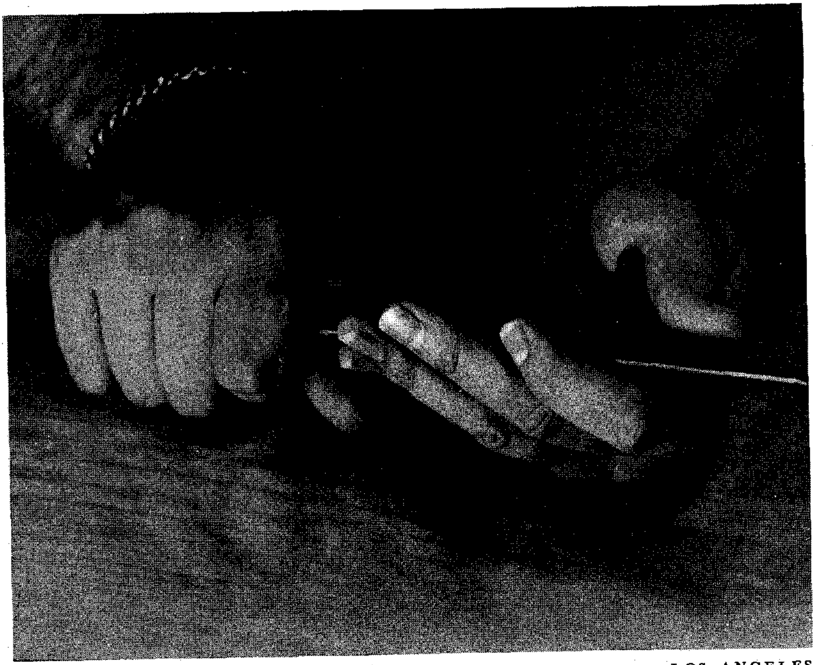


H. S. ULAN MT. VERNON, N. Y.

OF AGE SERENE

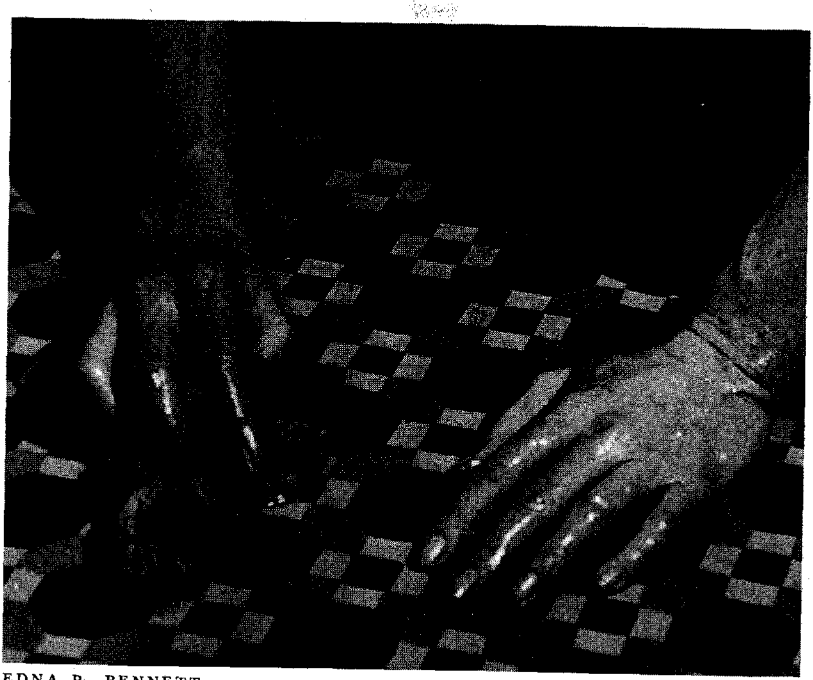
WESTELIN CHICAGO

OF ANGUISHED YOUTH



EDNA R. BENNETT LOS ANGELES

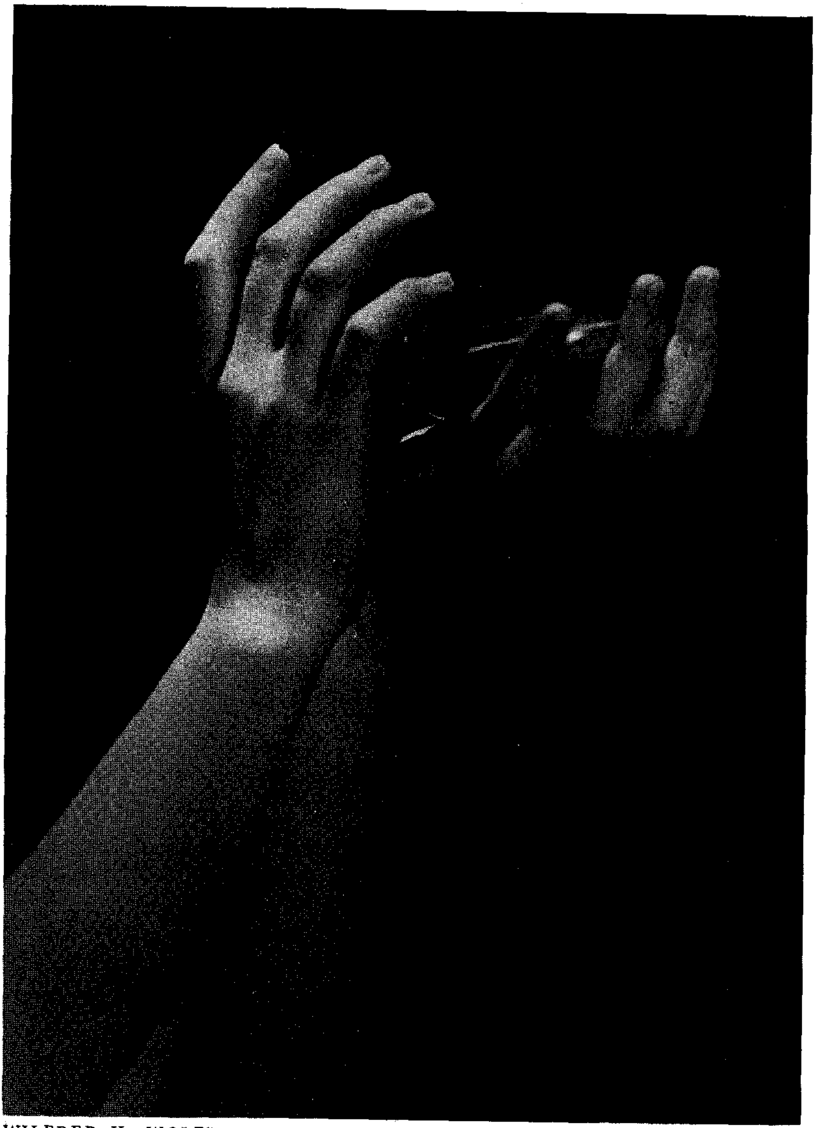
OF A ROISTERER

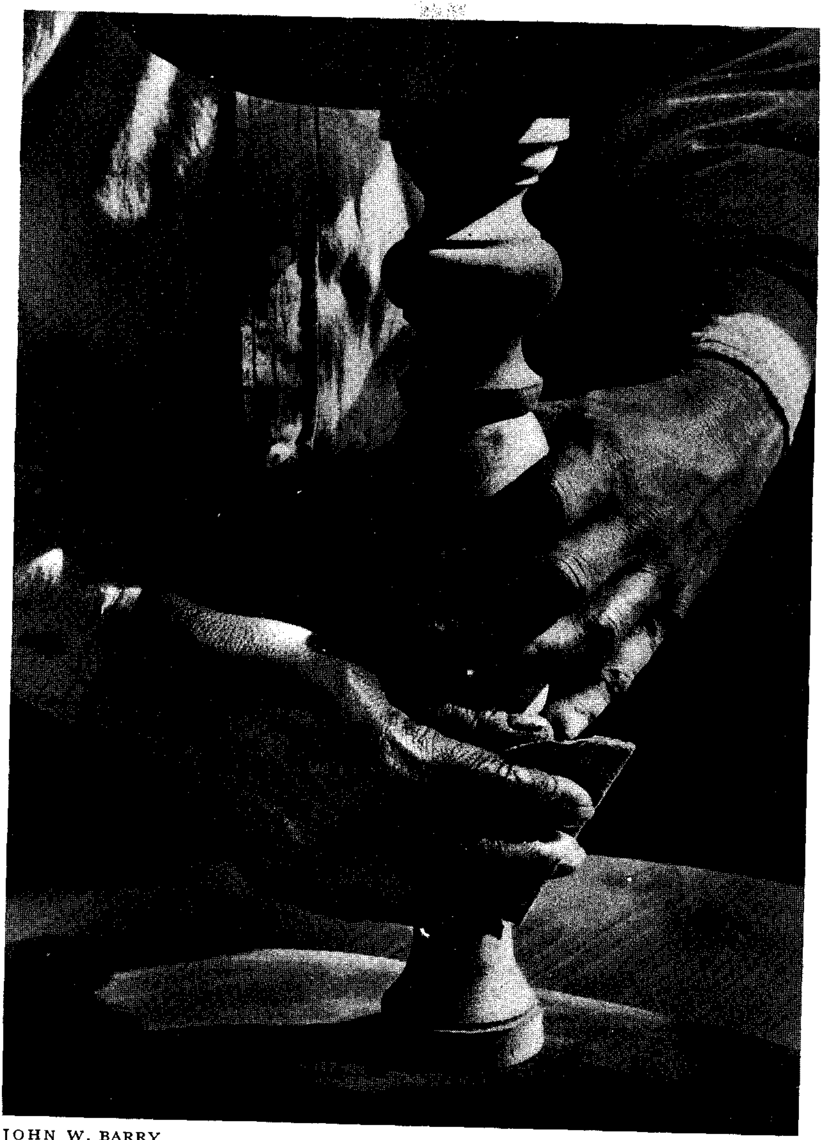


EDNA R. BENNETT

LOS ANGELES

OF A DRUDGE



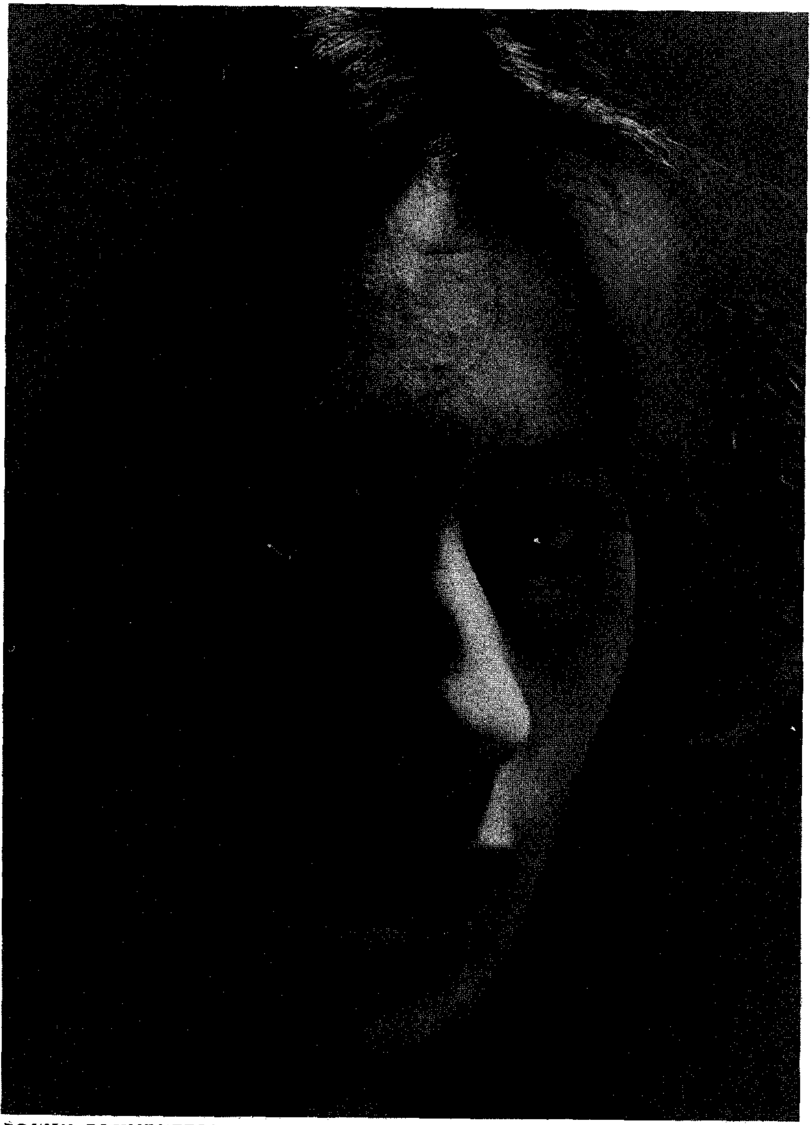


JOHN W. BARRY

CEDAR RAPIDS, IA.

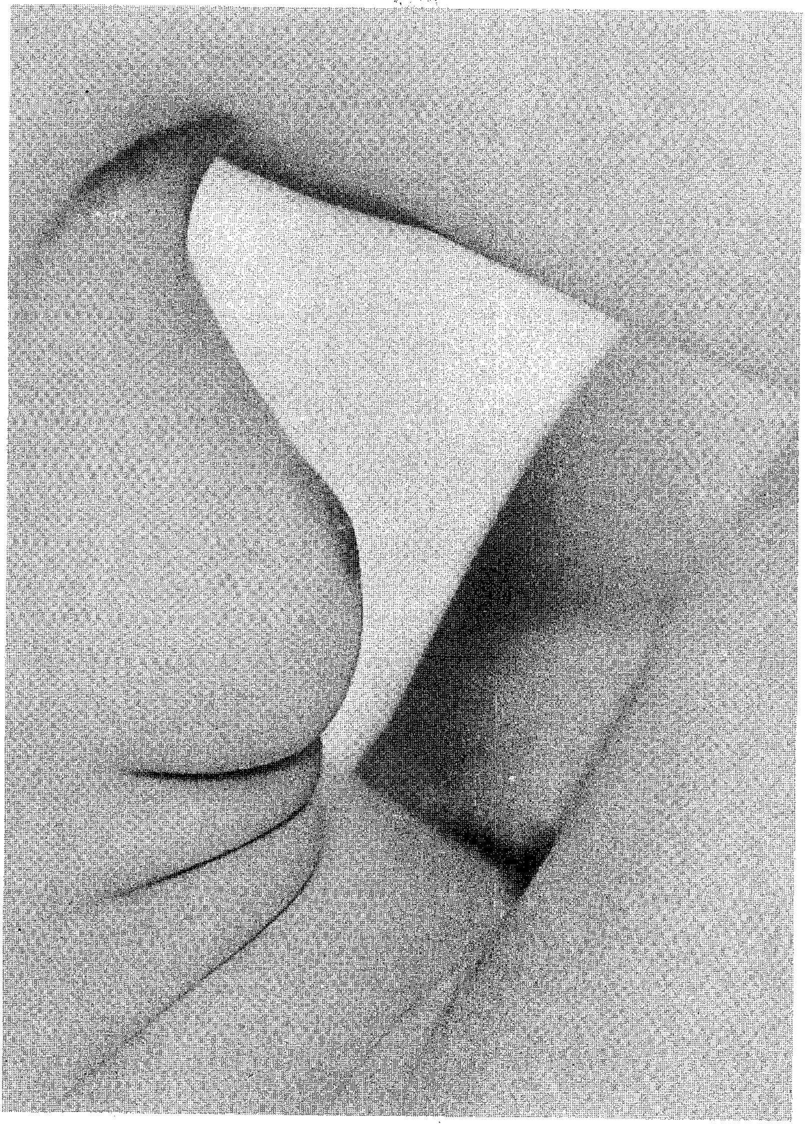
OF LABOR

SEPTEMBER, 1937



ERWIN BLUMENFELD PARIS

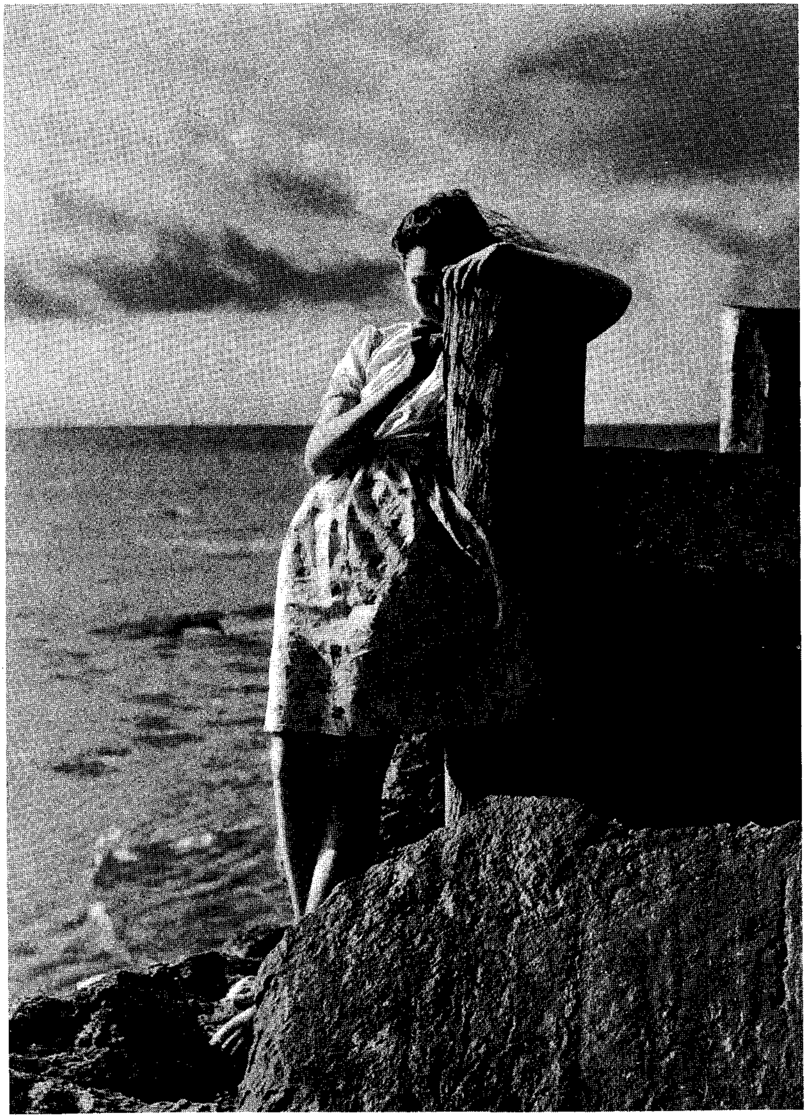
HEAD



ERWIN BLUMENFELD PARIS

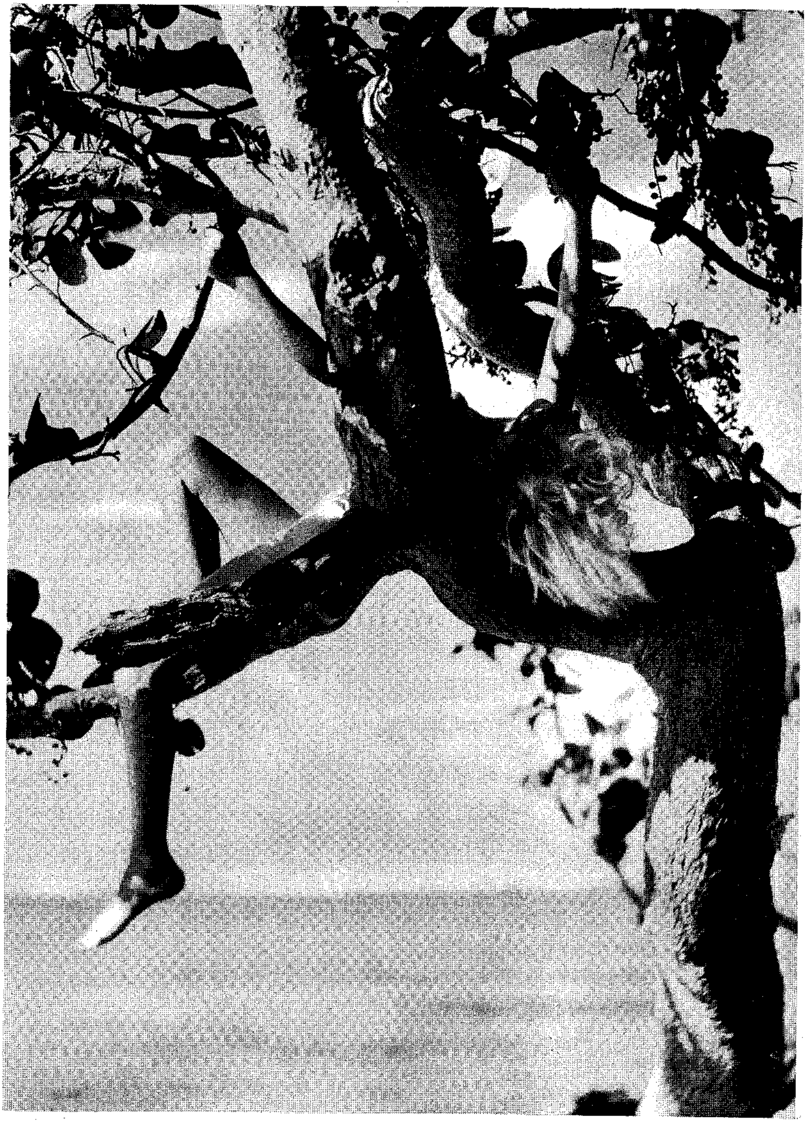
TORSO

SEPTEMBER, 1937



NELL DORR NEW YORK

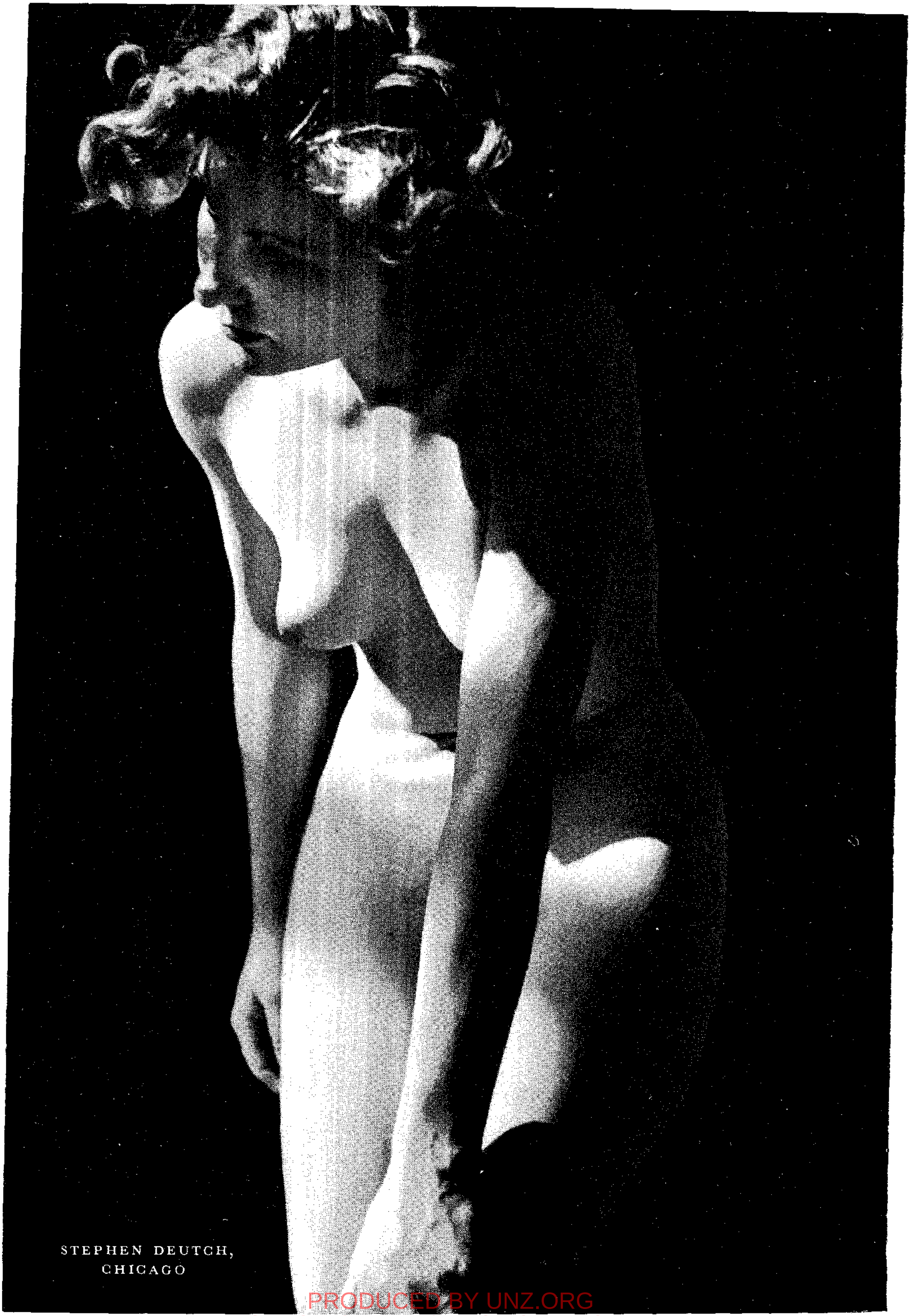
SOUTH WIND



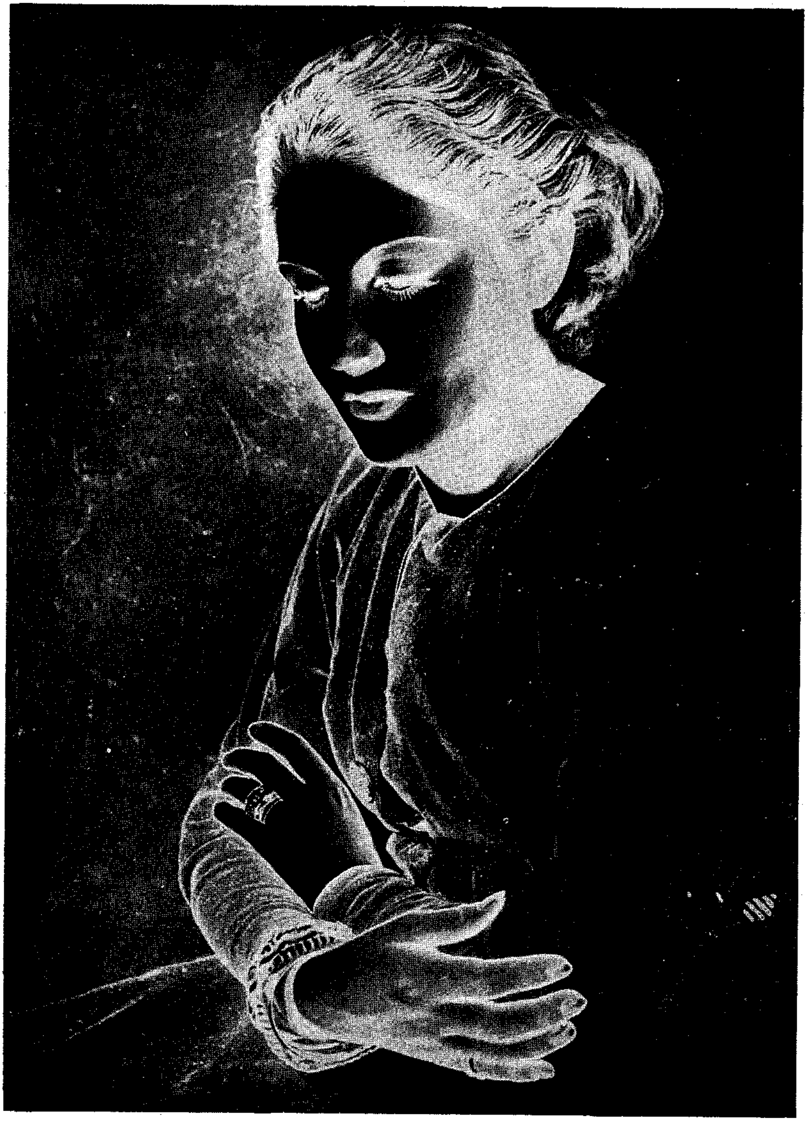
NELL DORR NEW YORK

SEA GRAPES

SEPTEMBER, 1937



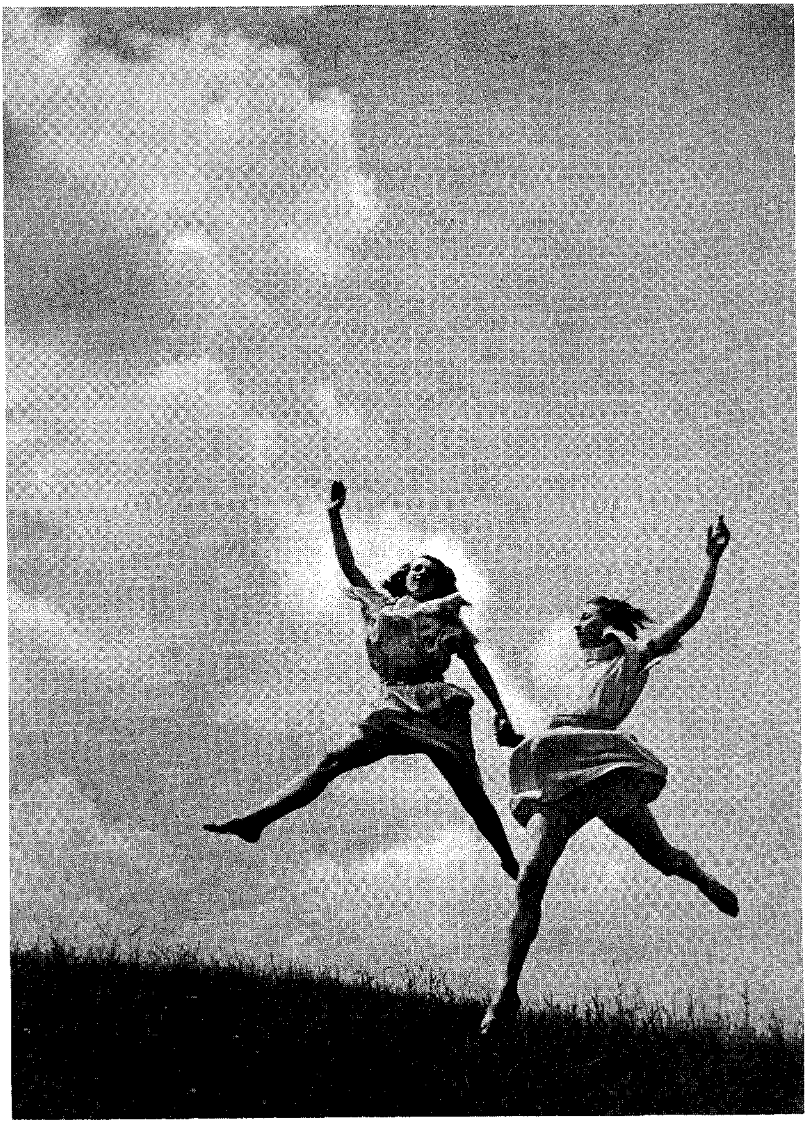
STEPHEN DEUTCH,
CHICAGO



ERWIN BLUMENFELD PARIS

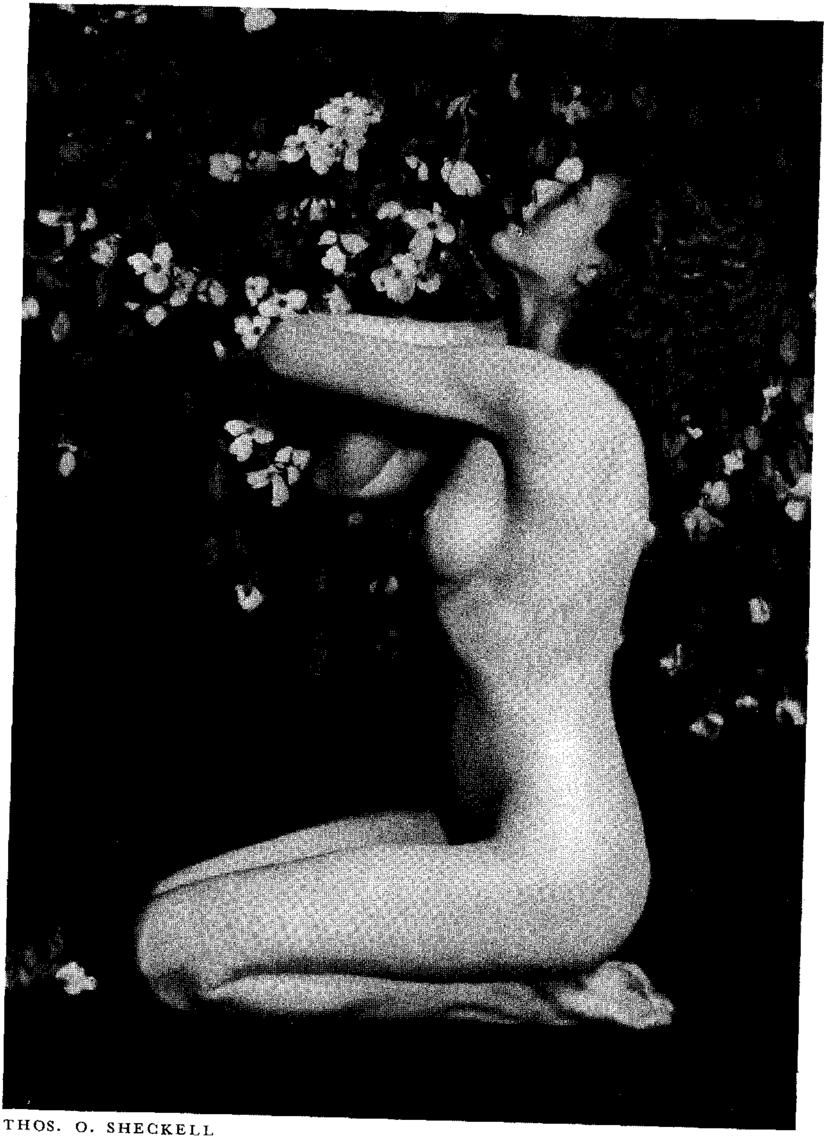
HALF-FIGURE

SEPTEMBER, 1937



CSORGEÖ BUDAPEST

SISTER ACT

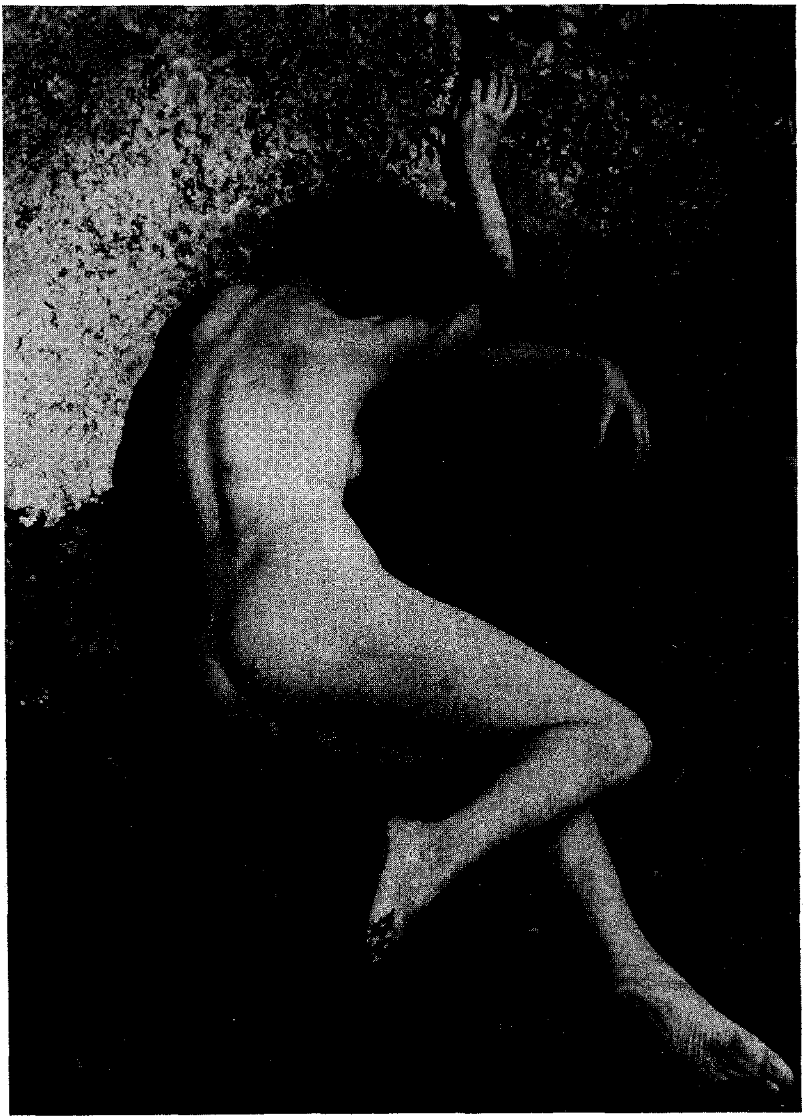


THOS. O. SHECKELL

EAST ORANGE, N. J.

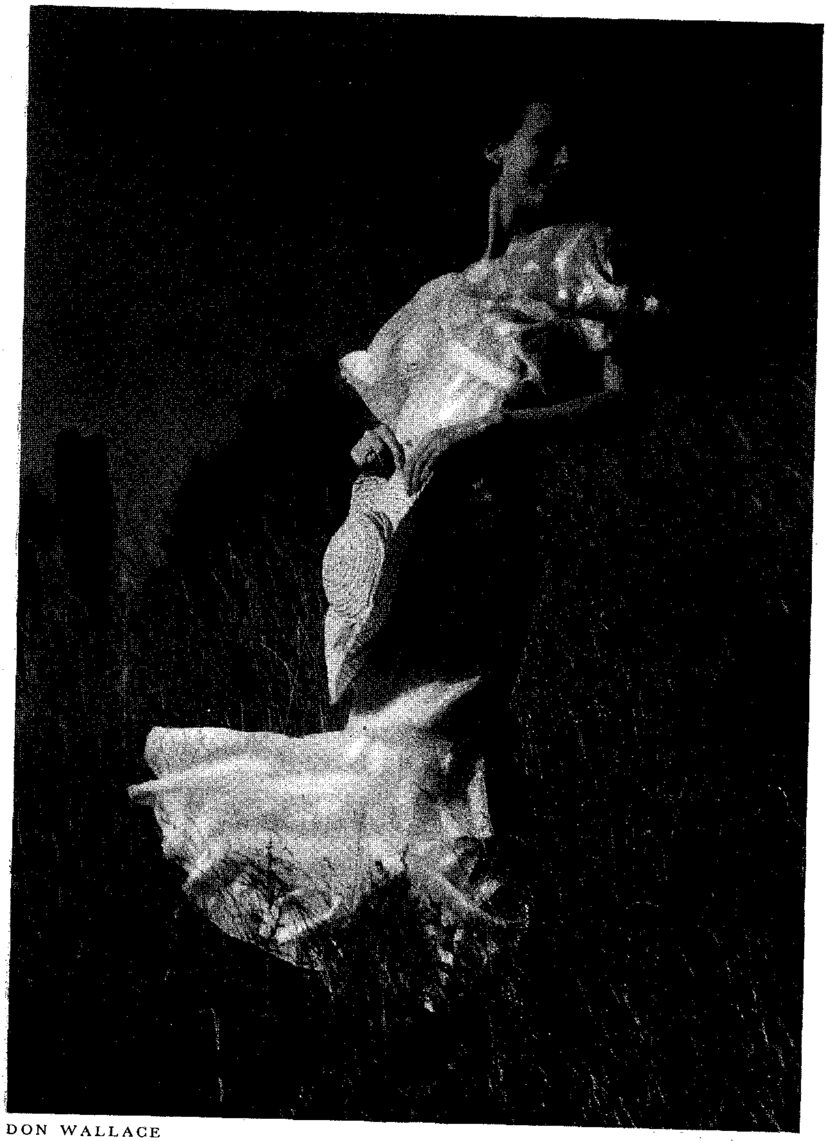
FRAGRANCE OF FLOWERS

SEPTEMBER, 1937



M. MEYS PARIS

WOOD NYMPH



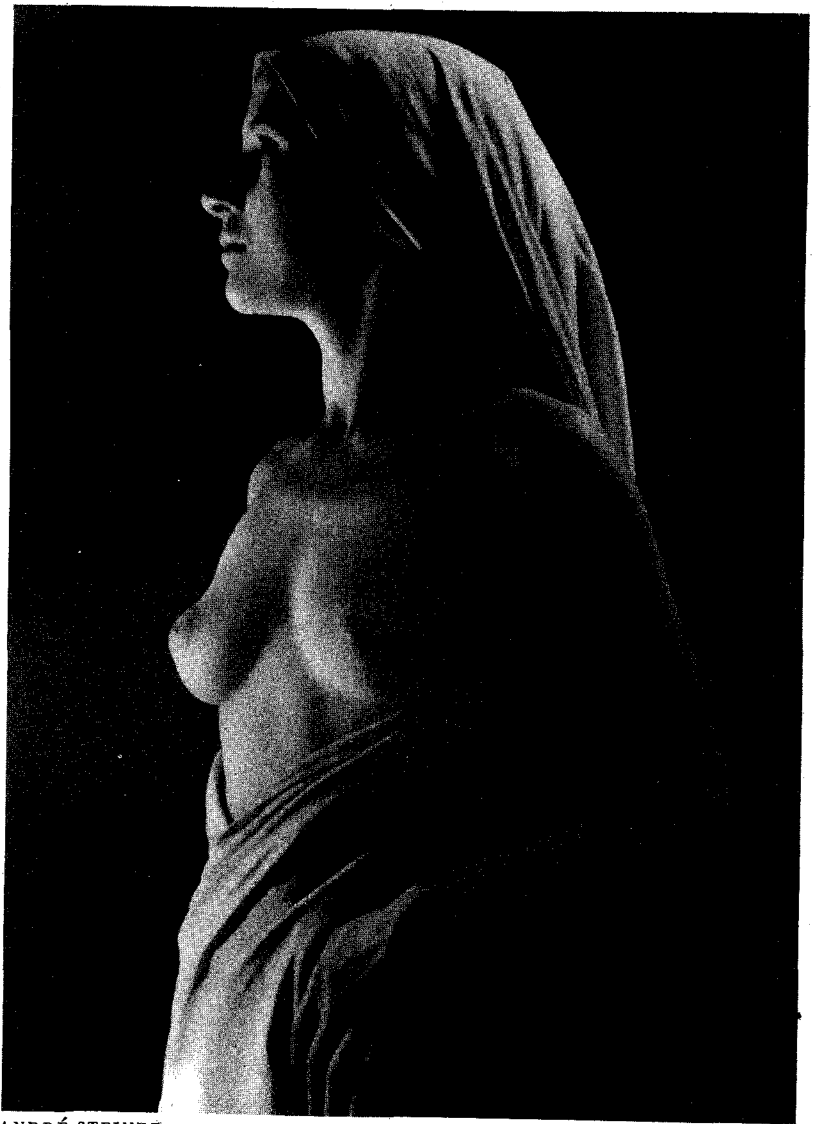
DON WALLACE CHICAGO

FIELD SPRITE

SEPTEMBER, 1937

F. GRUBER SOPRON, HUNGARY

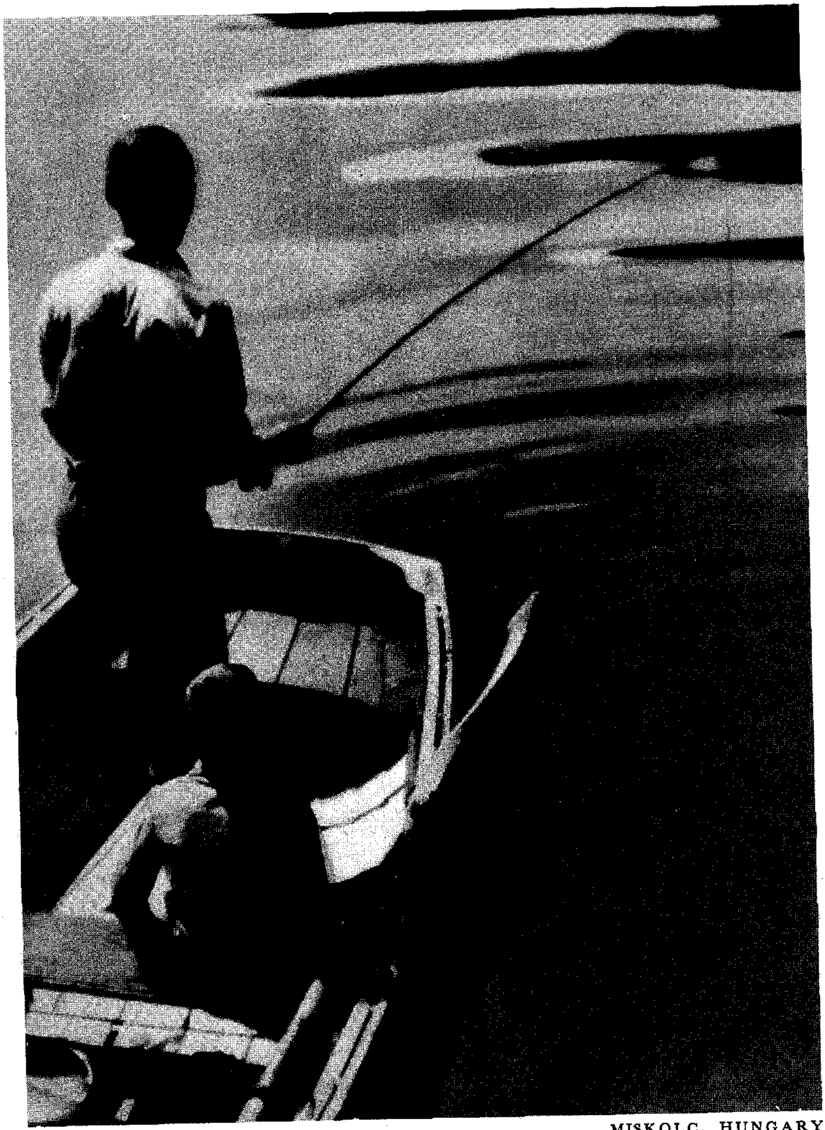
FLYING RINGS



ANDRÉ STEINER PARIS

DEMI-NU

SEPTEMBER, 1937



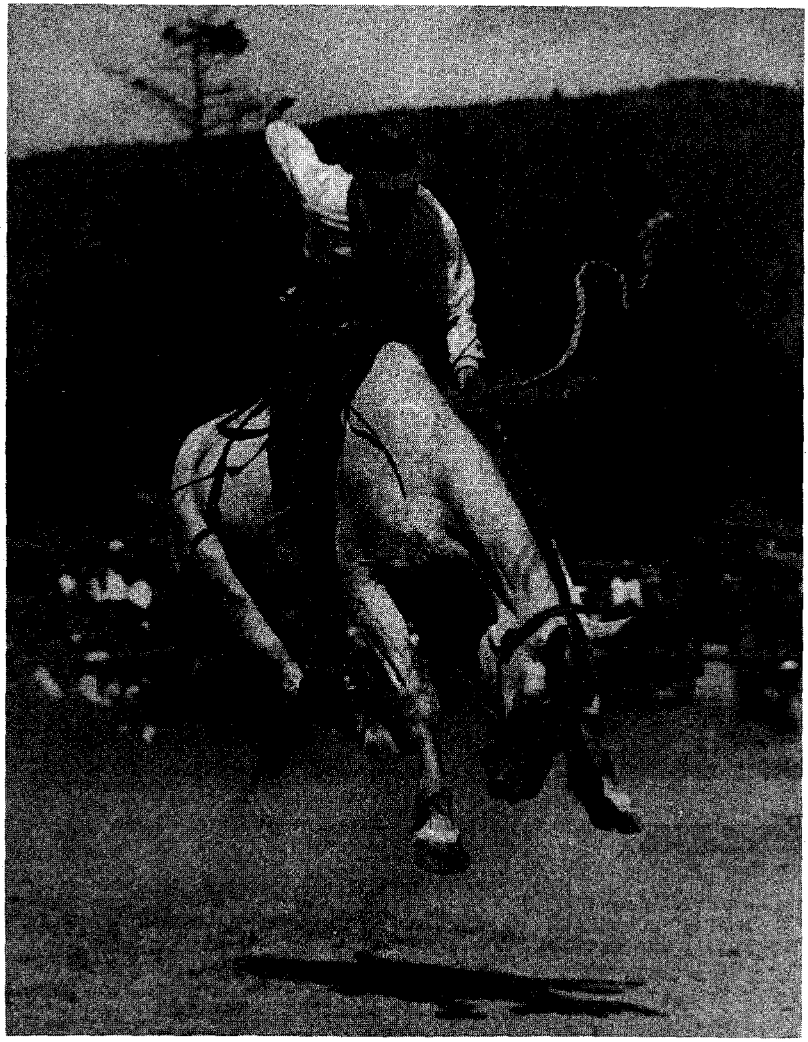
KAROLY KLETZ MISKOLC, HUNGARY

NIBBLE

DORIEN LEIGH LONDON

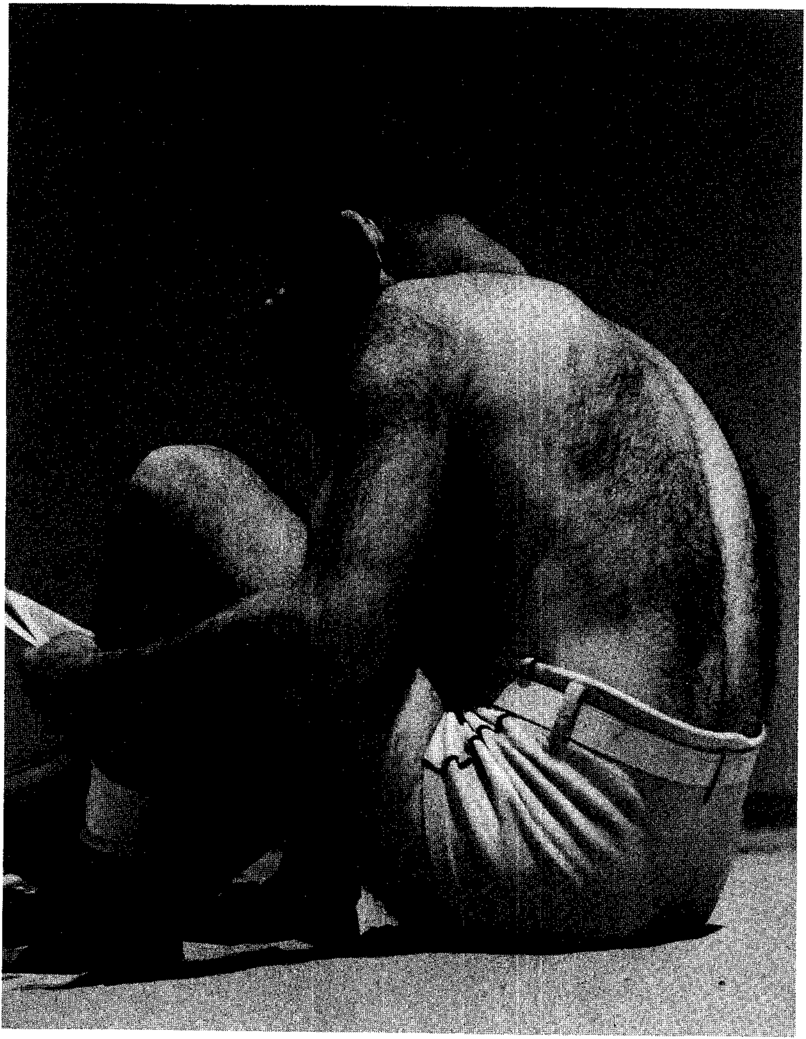
ON THE ISAR

SEPTEMBER, 1937



J. FRANK MC DANIEL CANTON, ILL.

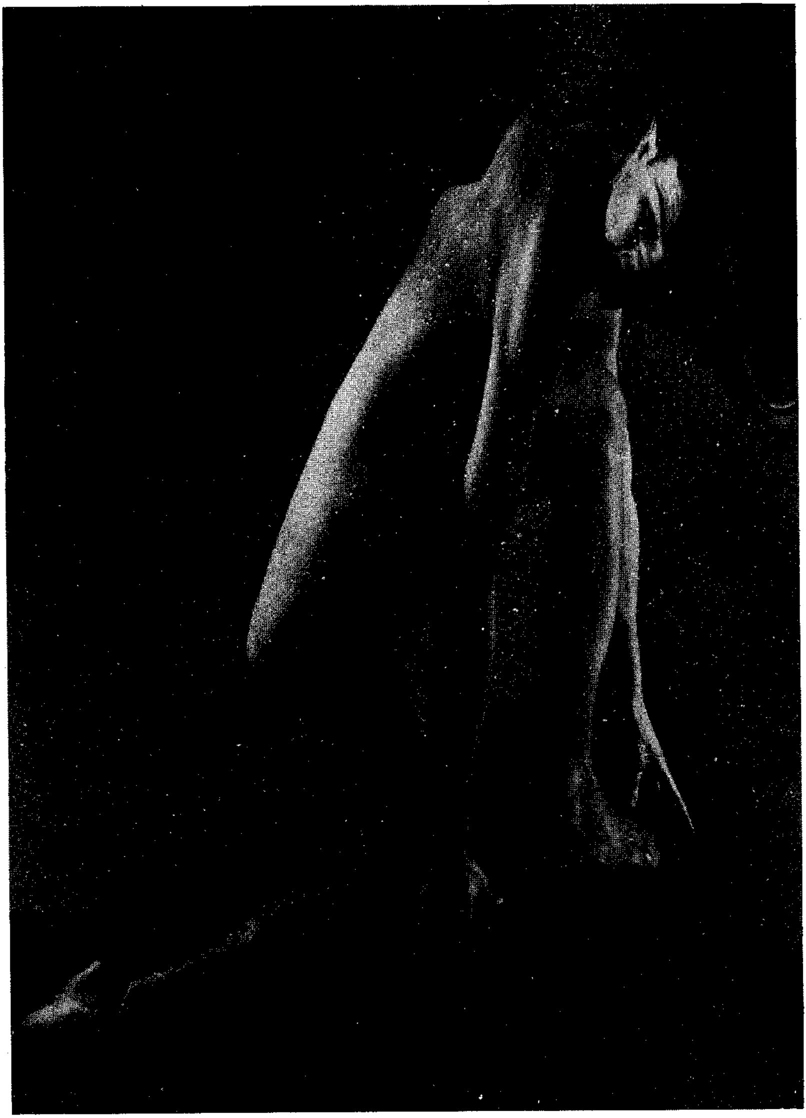
DUDE UP



STEPHEN DEUTCH CHICAGO

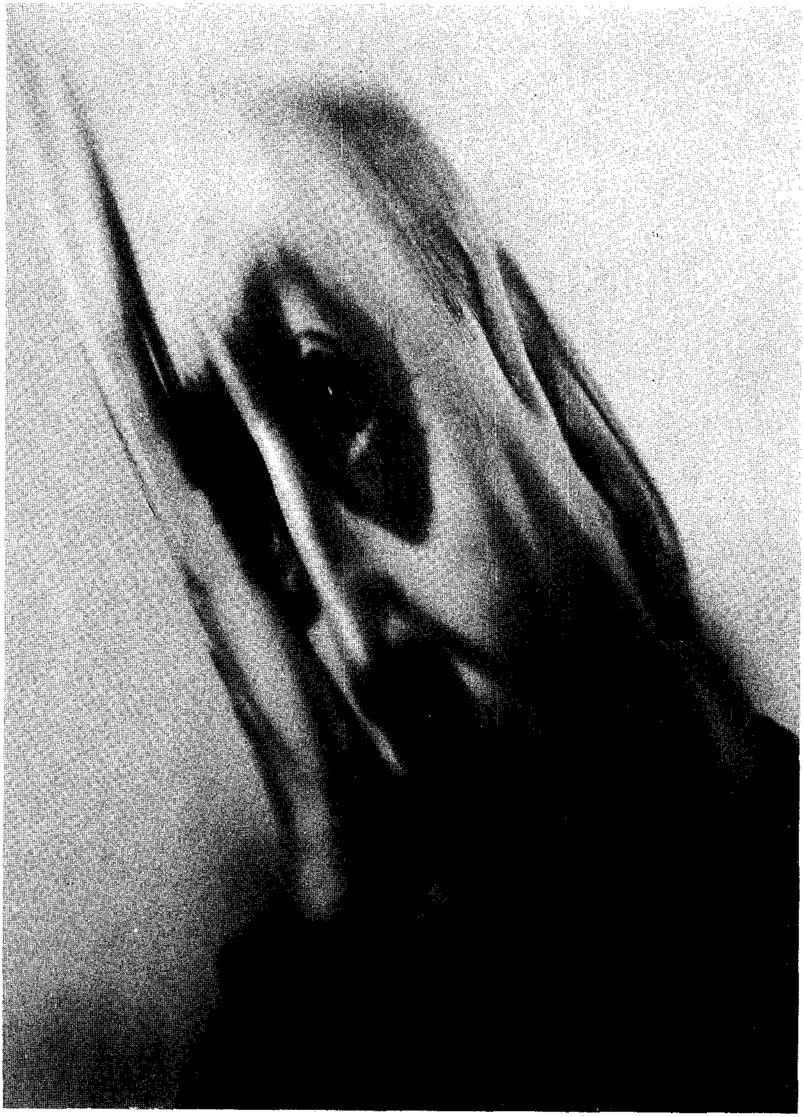
HAIRY APE

SEPTEMBER, 1937



STEPHEN DEUTCH CHICAGO

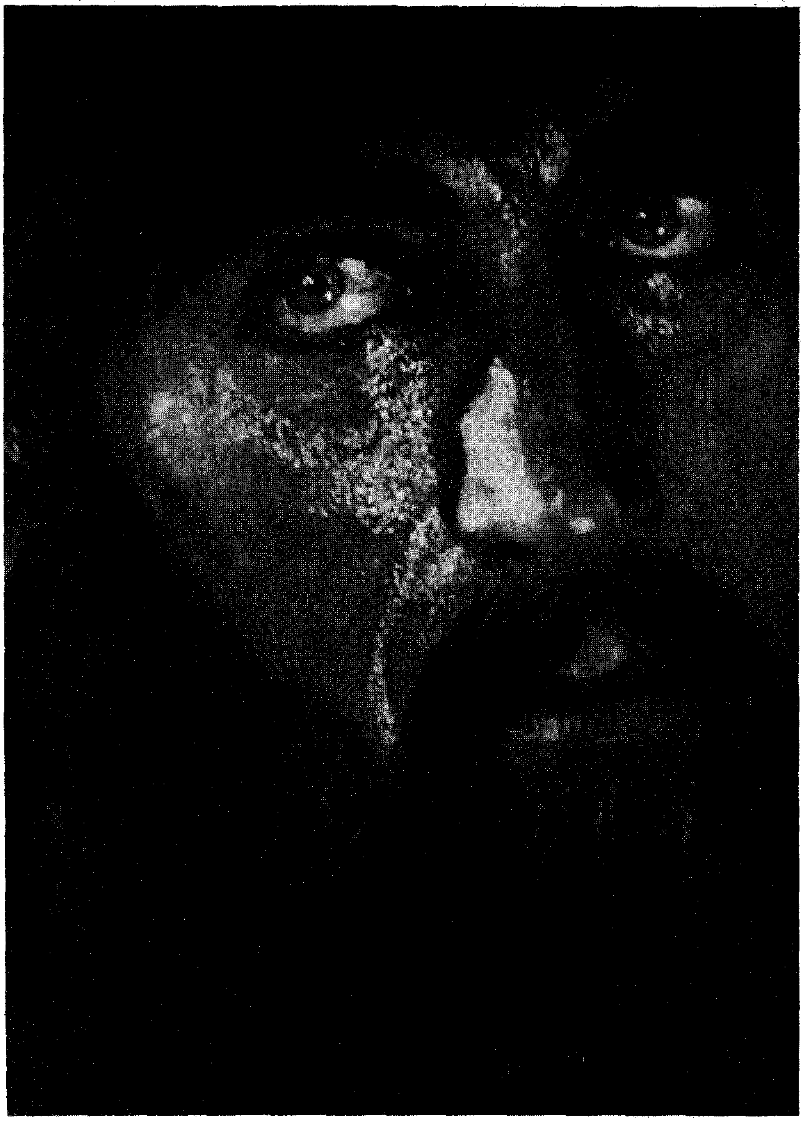
FRENETIC RHYTHM



STEPHEN DEUTCH CHICAGO

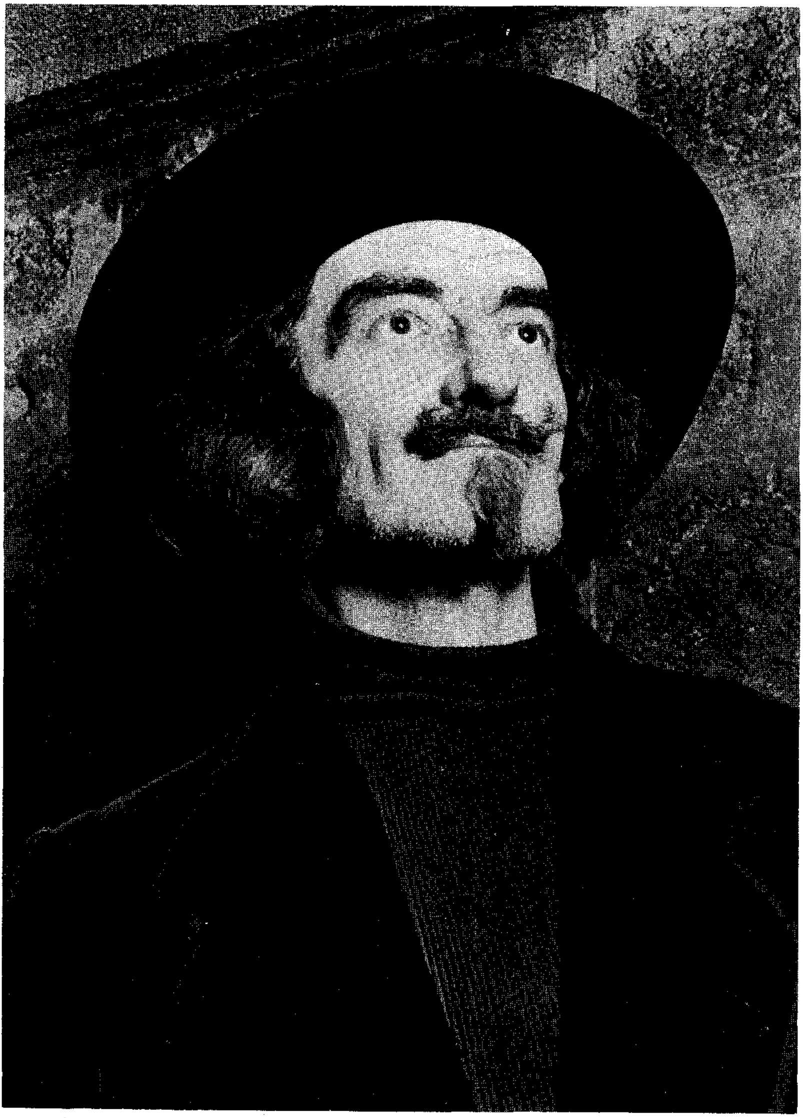
MIGRAINE

SEPTEMBER, 1937



REVESZ-BIRO BUDAPEST

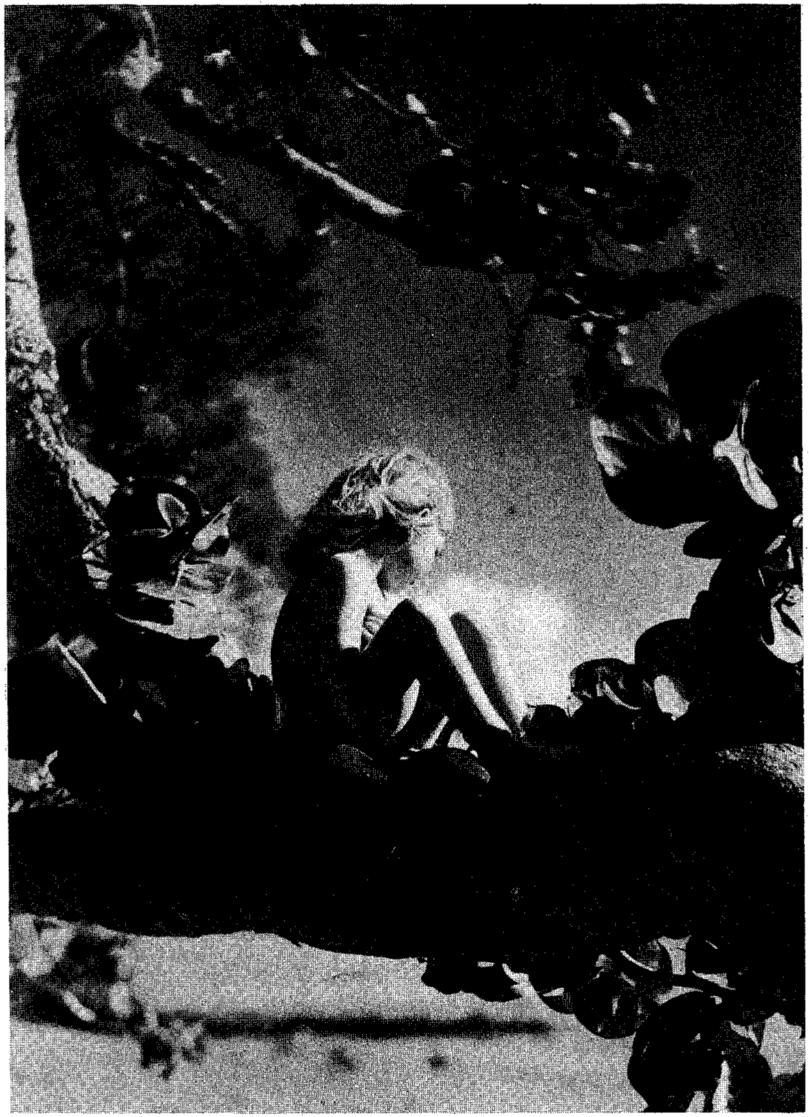
TARTAR



ANDRÉ STEINER PARIS

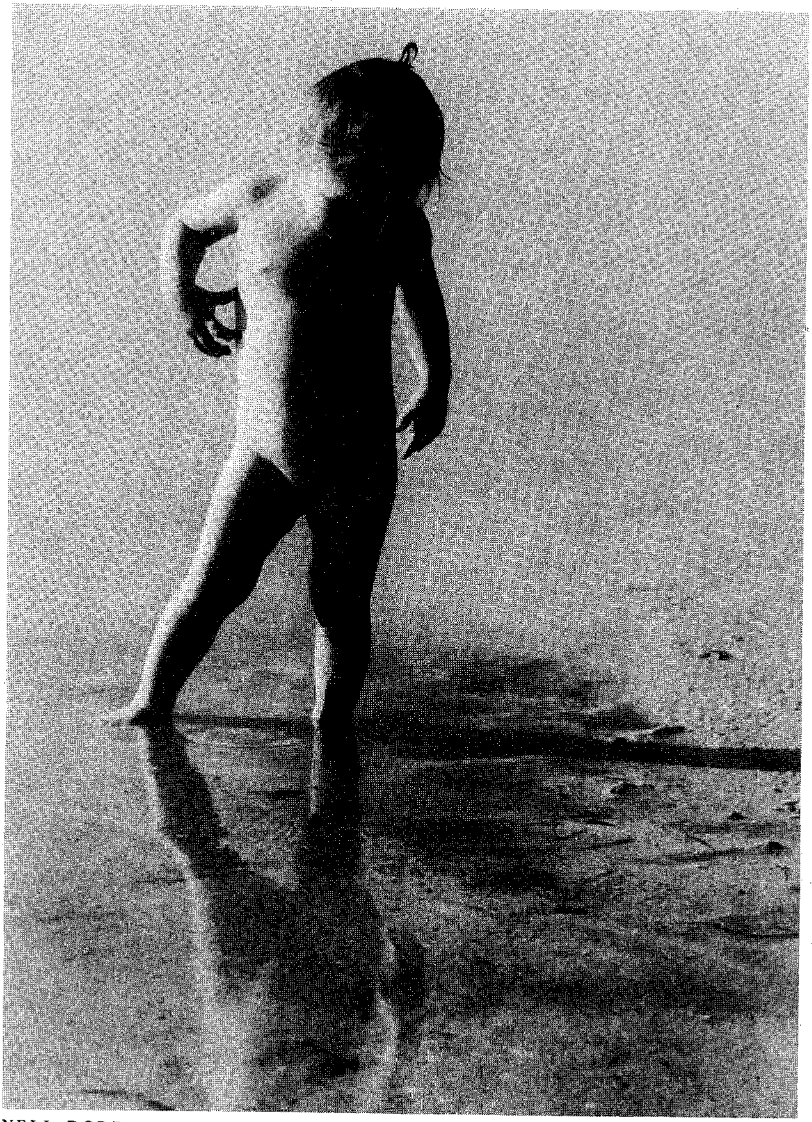
LATIN QUARTER

SEPTEMBER, 1937



NELL DORR NEW YORK

NEST

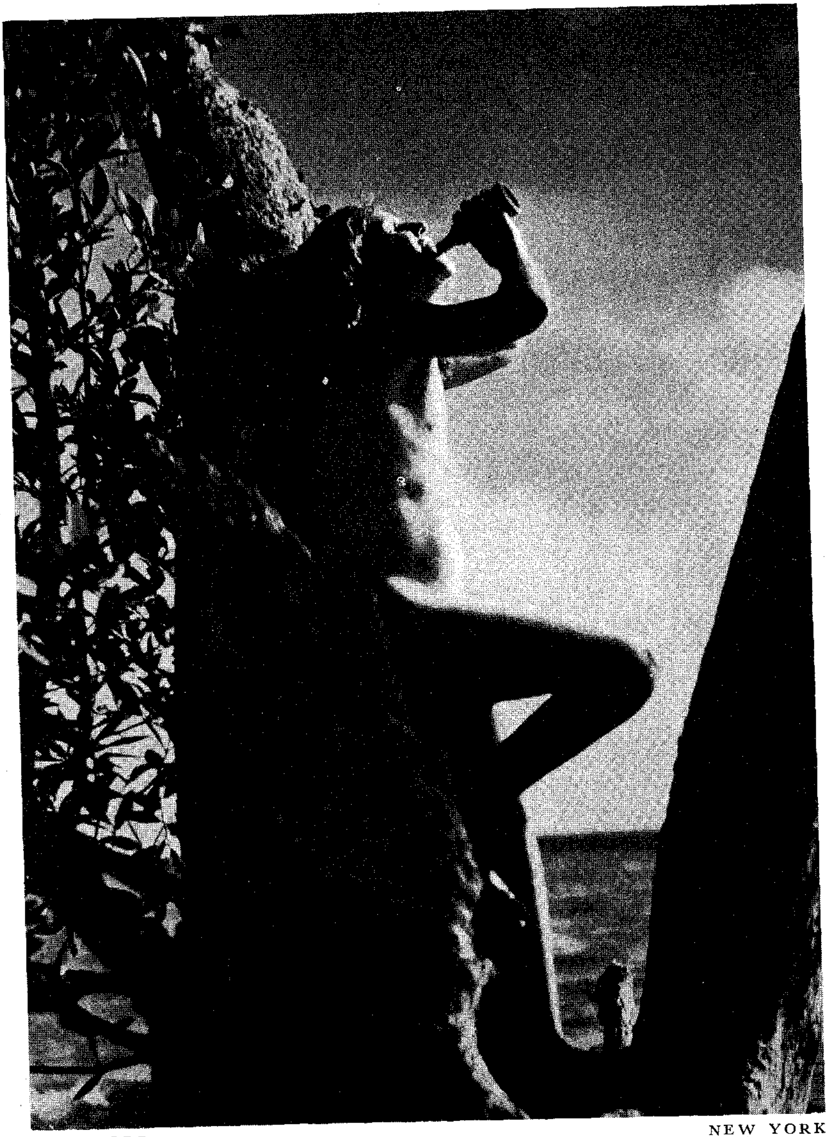


NELL DORR

NEW YORK

WATER BABY

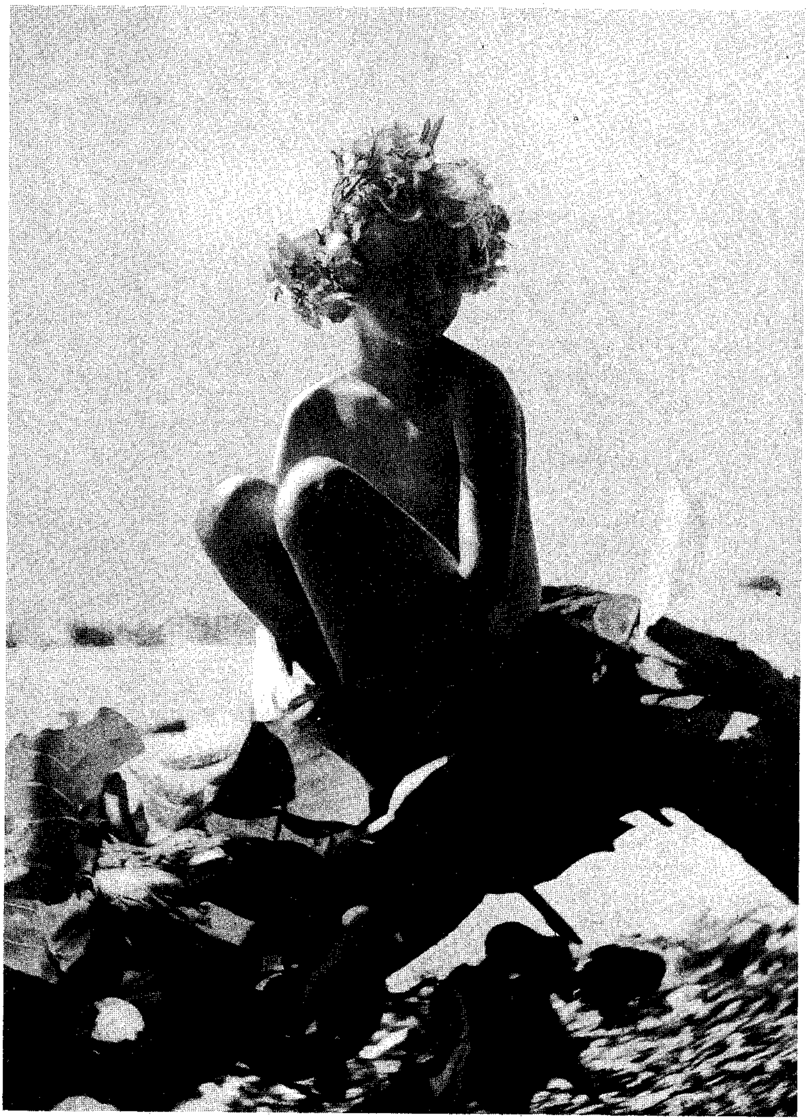
SEPTEMBER, 1937



NELL DORR NEW YORK

MORNING SONG

CORONET



NELL DORR NEW YORK

IMP

SEPTEMBER, 1937

MISERY MILL, INC.

THE HOSPITAL WAS A SOULLESS CORPORATION UNTIL CHARLES TRANSFORMED ITS MORALE

I MET Charles when I returned to the hospital for the first of my knee operations. The cutting on my hip the winter before had not cleared up my trouble for it had abscessed again, and now my knee seemed to be involved. So in the fall of 1927 I reported back to the hospital where an orderly from the receiving department helped me drag my weary carcass painfully to bed. I was fighting the depression which usually engulfed me when I was forced to return, and had just settled down for a good session of glooming, when a handsome, slender young man entered my room.

There was something foreign looking about him. His black wavy hair was combed straight back, his nose was large and slightly beaked. His manner was foreign too, for fixing large, inquiring brown eyes on me and bringing his heels together, he bowed from the waist, a slight motion but done with such natural grace that you somehow saw him, hand on heart, his trim figure bent almost double. In a low voice with a French accent he asked if I were all right and if there was anything he could do.

I could not place him. He did not have the white coat of an intern, but was dressed in dark trousers, spotless, white shirt and gay bow tie. I asked who he was and he said his name was Charles Feraher and that he was an orderly, at my service.

My surprise was complete. His neatness and alert air had nothing of the sloppy, beaten look of the general run of orderlies in this, and most other, hospitals. The last orderly on this floor had been a hapless old hulk, who when I bade him good-bye said, "Oh, you'll be back. All them bone-and-joint cases come back." Which was more or less true but—

"You're new here, eh, Charles?" I asked.

"Yes sir," said Charles. "I 'ave work here about three weeks."

"I thought so. And no one has told you about hospital etiquette. Let me set you right, do you mind?"

Charles didn't mind. Oh, no. He was eager to learn, he said. But his manner was hesitant and it was plain he didn't know how to take me. So I smiled and began:

"The way you do is to loaf in the

hall until someone puts on his light and buzzes twice to signal he wants an orderly. Then you hurry and hide in the sterilizing room or on the sun porch until some nurse finds you and sends you to answer the light. You start to help the patient but suddenly remember something you must do in the sterilizing room so you hustle out and hide again. Maybe some nurse will send you on an errand to another part of the hospital which gives you a chance to see some of your pals. Anyway by the time you get back to your patient he will be too exhausted to complain. The whole thing should take at least two hours. Is that clear?"

Charles was nodding and chuckling. "I 'ave no-teece what you say is true, but I 'ave decide to do it different. I made a rule nevaire to make a patient wait more than ten little minutes."

"Why, Charles!" I said. "That's absurd. You'll upset the whole joint. The first thing you know patients will be expecting service."

"May-bee," said Charles, accenting the bee, "but I'm goin' to try it anyway. It's what you call a novelty, eh?"

Novelty was right. I hadn't told Charles the half of it. I got my information from observation and from an orderly named Al who was the champion loafer of all the orderlies. He laid down the following rules which he said had contributed to his success: 1. Keep out of sight. 2. Always seem busy. When you travel from one loafing spot to another, hurry like hell. 3. Tell everybody how busy and overworked you are. 4. Never answer a light too soon or the patient will get wrong ideas and expect service. When he was cornered he always became very dumb: "What light? I didn't see no light. When was that? I don't remember nobody telling me that," etc.

So you can see that when Charles spoke of his reforms as a novelty he was guilty of vast understatement.

"All right, Charles," I said. "Go ahead. Upset the whole system. Answer lights under a half-hour. But don't do like you just did with me. Don't go popping into rooms and asking patients if there isn't something you can do when they don't even have a light on. Be humane. Spare 'em. Remember there are a lot of chronics, like me, around here who can't stand a shock."

Charles was amused and asked, "What is this chronic? Is it a disease?"

"I guess so," I said. "A chronic is a patient utterly without hope who goes through the motions under the delusion he is fooling those around him, and who at times succeeds so well he fools himself."

That evening, Charles came and insisted that he be allowed to wheel me, bed and all, down to the sun porch to see the sunset. I was depressed and grouchy, wanting to be alone, but when I saw he really would be disappointed if I refused, I let him have his way. There were three beds on the porch when I arrived. Charles maneuvered my bed close beside that containing an attractive young lady whose unnaturally bright, slightly pop eyes and fluttering hands tagged her for a hyper-thyroid. He bowingly introduced us as if our meeting were a small triumph, and marched off to gather more patients. Soon he had almost all the patients who were able to leave their rooms crowded onto the sun porch so that the place was jammed with beds and wheel chairs.

There was a fine view of the tree-covered old river valley from the porch, and soon all the patients were chatting away, handing around field glasses and forgetting their troubles. Once he had them all assembled, Charles stood in the large double doorway of the hall, surveying his charges with an understanding smile. He was alert, his body poised ready to glide here and there anticipating wants, adjusting pillows, swinging beds a little this way or that to make it easier for the patients to converse with each other without twisting. He was neither servile nor obtrusive, yet he made his presence felt, and the courtly flourish of his manner, the animation of his personality, lent a gayety and charm to what otherwise might have been a slightly grotesque gathering. Watching him, you absent-mindedly reached up to take a cocktail from a tray borne by a butler and were a little surprised to find it was only the nightly orange juice distributed by a matter-of-fact nurse.

It was astounding the changes Charles brought about in the morale of the private hall where I was a patient. Soon the nurses were helping him wheel his beds about and joining him in his attempt to humanize the coldly mechanical routine of the hospital. Sometimes he came on duty a full half-hour early in order to make the rounds of all the rooms, being friendly and obliging, yet deferential and sympathetic. He made some of the more lonely patients feel that, after all, there might be a heart in this big misery mill.

The co-operation Charles received from the nurses was partly due to heart complications. It was amusing to see old uniforms cut *à la* Mother Hubbard replaced by tight fitting new ones with flaring skirts, designed to accentuate rather than conceal. Faces took on a deeper flush of drug store health and walks became hippy swings.

But the main reason the nurses had a better, more human attitude was because they had a genuine desire to be helpful and needed only to be shown the way and they shed their callousness caused by the monotony of the routine and the horrible example set by some of the doctors. Women withstand the hardening influence of a big institution better than men. Nurses may grow careless and case hardened, but seldom to the extent that doctors do.

At the time of the reign of Charles there was an exceptionally good bunch of nurses on my floor and they responded so well to his example that they went far beyond their duty to make things pleasant. One night a group of nurses who were on day duty came back at night, on their own time, and gave four or five of the patients a party. They brought ice cream and cake and wheeled an old phonograph down to the sun parlor where they assembled the patients. An Irish nurse named Monahan and a small, hoydenish nurse whose name I have forgotten came for me. Both these girls had taken care of me in the past and felt they knew me very well. It was to be a costume party, they said, and decked me out in an old hug-me-tight, tied the strings of a bonnet beneath my chin and made me hold a small parasol primly over my head as they wheeled my bed onto the sun porch.

Elizabeth, the little TB bone case, was there, very excited, though she could not move because of her enormous cast. Also a young student nurse who had contracted TB of the spine while in training and now had to lie motionless on a small padded iron frame which was blocked about a foot above the surface of her bed. Two or three other patients were brought in, but none of them were in "fancy dress" so, of course, the joke was on me. We ate the refreshments and the nurses danced with one another, but there was little the patients could do but watch. Even though our gayety was a trifle forced, put on for the sake of the nurses, it was a diversion and showed a beautiful spirit of kindliness on their part.

Charles, the instigator of this new spirit, spent part of every night in my room helping me wear away the sleepless hours. He was an Armenian who had been driven from his country when as a boy of fourteen his people had been massacred by the Turks during the World War. He had been well educated in France and had worked for a jeweler there who had used him to smuggle diamonds from Holland. He had come to this country to complete his education and to become a citizen. In the daytime he attended a nearby normal school from which he was soon to receive an AB degree, and at night he worked in the hospital. Although he had no illusion left, he was never bitter, but, rather, he viewed his life and the world about him with a detached eagerness, ready to grasp the first chance which would lead to material success. He thought the chances for that success in America were overestimated, and planned to return to France as soon as he had completed his schooling.

Charles did the extra work in the hospital simply because he was intelligent enough to see the need and too kind hearted and energetic not to do what he could to better conditions. The doctors were so well insulated from the minor details of institutional life that it is doubtful if a single one was aware of his excellence. Entirely on his own initiative, Charles raised the morale of the patients and nurses to a higher pitch than I have ever seen it in that or any other hospital. I was certain that if the morale of the whole hospital staff could have been raised proportionately there would have been fewer of the dead being wheeled every day to the morgue. Even though Charles was exceptional, he filled only a part of the great gap which exists in every large hospital. Sometime in the future, this gap will be filled by psychologists or psychiatrists who will not only take over the social duties as Charles tried to do, but will be equipped with knowledge that will enable them to help the patient handle his fear and pain. Some patients are ignorant about many phases of hospital life. They sometimes fear X-rays will cause pain, or have harmful after effects. They wonder what an anesthetic feels like. They can see no sense in staying flat in bed and no one explains that a more accurate clinical picture of the patient's heart, temperature and respiration can be obtained if he is quiet.

All medical patients will feel lonely until they become accustomed to the routine, while surgical patients are filled with fear ranging from vague apprehensions to actual terror. This is only natural. We all fear the unknown and most of us are ignorant about some part of the strange hospital ordeal. The doctor who is to operate is the greatest unknown of all. We are forced to lose consciousness and trust him with our lives, yet in most cases we know little about him other than a vague rumor that he is a "good man," or we may form an inadequate judgment from one or two short, impersonal interviews. We know the batting averages of every big league ball player for they are published in the paper. Is it too much to ask, then, that the doctor in whose hands we place our lives be required to keep a record so we can learn his batting average? As things are, these figures are buried in hospital records to which we have no access. Just a comparison of the autopsy reports with the diagnosis would help a patient avoid doctors whose errors in diagnosis were too frequent. But until better times come, we must trust to luck to select a good doctor, and be content not to know his score, that is, what success he has had with cases similar to ours.

All this uncertainty breeds fear. Most of a patient's fear is exaggerated because in his ignorance he builds up absurd possibilities which are much worse than any reality. Such fears would disappear if a psychiatrist explained the actual facts. Sometimes a patient needs help in finding just what it is he fears, so that it can be explained away or dispelled by facing it. For, generally, if a fear can be tracked down, dragged out into the light and looked at squarely, it will disappear. Occasionally fear will be bound up in some mysterious way with a patient's trouble, in the same way that skin diseases often make people melancholy. This is not yet explained by medical science, but it would be more than ever desirable to have a psychiatrist keep watch on such patients. I have known patients to fear they would die on the operating table when a mere statement of the low percentage of such cases would have helped them. A psychiatrist could use suggestion by helping the patient plan things to do after the operation and this in itself would be a promise of recovery. He should also let the patient know exactly what the results of the operation will be, for some surgeons seem to be too busy to do this, and I have known patients to expect a degree of cure which was impossible. This misunderstanding leads to bitterness.

As things are now, a patient comes in and soon senses the unfeeling coldness of the big mechanical mill that is the modern hospital. Almost the first question asked is, "Who shall we notify in case of death?" and then, "Where shall the body be shipped?" Several times I have been asked to sign an autopsy permit, but this is unusual. Sometimes these questions are tactfully put, but more often they are asked in a bald, impersonal way which reveals how casual a thing death is in these surroundings. By this time the patient usually decides that he doesn't feel very well and that perhaps next year would be soon enough to be cut open. Only his pride and the fact that his clothes have been taken from him stops flight. The morning of the operation he signs an unfair agreement giving the surgeon the right to do any odd bits of cutting that may strike his fancy. In some hospitals you are sent to the operating room with a large tag pinned to your gown. It looks like an express tag and has your name, room number, type of operation, etc., on it. Somehow it hints of mixups and is in no way quieting.

So a patient's alarm mounts until he feels trapped, caged, though he does his best to hide it. The doctors and nurses have no time to help him even when they realize how he feels. I, myself, have felt this fear, and I once saw a man driven insane by it. This happened at a hospital in Detroit. My room was just opposite a five-bed ward and it was hot summer so the doors were open and I could hear all that went on in the room across the hall. Four occupants were city workmen and the fifth a sensitive farmer lad, in for a minor operation. Not half realizing what they were doing, the four played upon the farmer's ignorance and gullibility, terrifying him with imaginary tortures of the operating room. I was completely bedridden but did what I could to stop them by appealing to the head nurse. She did not take me seriously, and the farmer left for the operating room moaning, "Oh God . . . God help me" over and over. He arrived there a screaming maniac. The doctors wisely decided not to operate, but it took a week in the psychopathic ward to restore him to normal and the experience undoubtedly left a mental scar. Later, on the sun porch, I had the satisfaction of telling those guys what I thought of them. They took it well for they were ashamed and explained they had all felt this same fear, but had not realized it could drive a person insane.

All, or at least a greater part, of this fear could be eliminated by a wise psychiatrist. But it is work that calls for skill. No false sympathy, or just-rest-easy, we'll-take-care-of-everything attitude would quiet the fears of a normal person.

After the operation a psychiatrist could help with the pain. It should be his job to determine by skillful questioning whether or not a patient would be an easy victim of morphine. He could conquer both fear and pain to some slight extent by helping the patient divert his mind. He could soothe the patient's irritability, correct a bitter outlook, aid in fighting boredom with the use of radio, books, occupational therapy and a supervised educational program. With his mind thus eased the patient could center his whole being on the fight of his disease. I hope that some day there will be enough doctors so this necessary refinement in death fighting technique will be in general use. When this happens fear and pain will not so often work hand in hand with disease and be the deciding factor, along with unnecessary noise and confusion, in the struggle. Then there will be a higher percentage of cures.

So through Charles, the greatest of my orderlies, I caught a glimpse of improvements which could be made in hospitalization if compassion and intelligence were mixed with inflexible routine and cold science.

—DON DAUGHERTY

You would expect that, after his ten years of hell, Don Daugherty would be more bitter than he shows himself to be, in this story. Ten years soaking up the poisons of microbes that are slowly killing you, surely that doesn't aid the precise working of your brain cells. A large part of that same ten years, passed in fighting the pain these killing microbes cause you, surely that should leave you little more than a peevish cynic and whining egotist. But here, in this present story, telling how the humanity of a humble orderly for a time defeated the machinelike inhumanity of a part of a great hospital, Daugherty, it seems to me, actually foretells the spirit of our houses of healing of the future . . . In those better times, as he himself calls them, those times he waits for but will never himself see, it will be thought barbarous, yes infamous, that there was ever anything pecuniary between patient and doctor, between sick human being and the hospital. What Daugherty demands here is a basic right of the sick: enough orderlies, nurses, doctors, of a sufficiently high degree of humanity and intelligence so that all *patients can be taken care of promptly and efficiently. What Daugherty suggests here: an adequate corps of skilled psychologists to fight sick people's fear—that would surely have had the enthusiastic endorsement of Pavlov, greatest of all physiologists of the human brain and emotions. But just let the sad army of our invalids, our sick people league themselves together to demand these rights, and what would be the answer? You know the answer: why, that would be economically unsound, economically impossible. But this barbarity of dollars-first-life-afterwards, will pass. Just as pouring boiling oil into wounds, putting twelve people into a hospital bed, beating those mentally sick, have passed.*

And to the final wiping out of our present system that gives profits a higher dignity than suffering, Don Daugherty's pain saga is making its own contribution. —PAUL DE KRUIF

LORD BACON'S BLACK HEN

THE BIRTH OF A DISCOVERY AND THE DEATH OF THE DISCOVERER ARE TRACED TO A HEN

Hickety pickety, my black hen,
She lays eggs for gentlemen.
Gentlemen come every day,
To see what my good hen doth lay.

THE rhymesters of the Elizabethan era who penned so many vitriolic lines about the doings of the mighty, with little thought these verses would be perpetuated in childish lore, occasionally alkalized their mental acid by scribbling a few lines of doggerel entirely denuded of venom or satire. Such a verse commemorated the virtues of a certain black hen, and immortalized one of the greatest scientific achievements of the age. This achievement was the discovery by Francis Bacon that flesh could be preserved by the use of cold and salt.

Lord Bacon's favorite stroll was up toward Highgate, where he had made friends with an old woman living in a small house at the foot of Highgate Hill. The good dame was very proud of her chickens, a fine black breed, and liked showing off their good points to the great man.

One day as Bacon broke the length of his walk by chatting to this woman, a brand new idea occurred to him. It was in winter, and a light snow was falling, slightly adding its contribution to its depth already upon the ground. The idea persisted in the mind of Bacon, and would not be disposed of. Why wouldn't it be possible to preserve meats and other perishable foods by means of cold?

So the scientist bought a big, fat hen, forthwith, and there in the winter's chill, killed it, plucked off its feathers, removed its inner organs, and promptly stuffed it with snow to which a little salt had been added.

It was a somewhat lengthy process. The day was cold, the snow wet. Finally he returned to his lodging house, where he contracted a bad cold as the result of his exposure.

But the scientific experiment was a success. It became noised about, and crowds of curious folk so besought the old woman for information concerning it, that she and her hens did a thriving business selling eggs.

Lord Bacon could not shake off his cold. He became so ill that his death occurred some time later as a direct result of his scientific gift to the world.

—EDNA S. SOLLARS

BOOKMARKSMANSHIP

OF COURSE, YOU NEVER MISSED BACK IN ENG. LIT. C-6, BUT HOW IS YOUR AIM NOW?

COUNT two points for each correct answer. Then a score of 70 points is fair; 80 is good; 90 is excellent; and 100 is perfect. Answers will be found on page 170.

Only one of the three suggested answers to each question is correct.

1. What good-natured drinker had his twenty-year-old nap commemorated in Irving's *Sketch Book*?
   (A) Philip Firman; (B) Obadiah; (C) Rip Van Winkle.
2. Name the Scottish thane murdered by Macbeth.
   (A) Banquo; (B) Gargantua; (C) Macduff.
3. Name the witty parson of Sterne's *Tristram Shandy* represented as a descendant of one of Shakespeare's jesters of the same name.
   (A) Friday; (B) Yorick; (C) Malvolio.
4. Who is the clown in Shakespeare's *As You Like It*?
   (A) Manfred; (B) Touchstone; (C) Figaro.
5. Who was the heroine of Hawthorne's *Scarlet Letter?*
   (A) Helena; (B) Laura Bell; (C) Hester Prynne.
6. Which ride by a "London citizen" is celebrated in a Cowper poem?
   (A) Gil Blas; (B) Nym; (C) John Gilpin.
7. Which name did Robin Hood assume in Scott's *Ivanhoe?*
   (A) Amri; (B) Ferdinand; (C) Locksley.
8. Who is the country gentleman described in Addison's *Spectator?*
   (A) Aeneas Manson; (B) Sir Roger de Coverly; (C) Clive Newcome.
9. Which of King Lear's daughters was faithful?
   (A) Cordelia; (B) Adriana; (C) Amelia.
10. Who was the heroine of a Longfellow poem concerning Acadia?
    (A) Evangeline; (B) Eugenia; (C) Jane Eyre.
11. Give the name of Defoe's shipwrecked hero.
    (A) Edward Dorrit; (B) Robinson Crusoe; (C) Septimus Felton.
12. Who is the clever, selfish heroine of Thackeray's *Vanity Fair?*
    (A) Becky Sharp; (B) Belinda; (C) Florizel.
13. Who is the detective in Hugo's *Les Miserables?*

(A) Inspector Bucket; (B) Mantalini; (C) Javert.

14. Name the brutal slave-master of Mrs. Stowe's *Uncle Tom's Cabin.*
(A) Captain Costigan; (B) Baron Bradwardine; (C) Simon Legree.

15. Give the brother's name in the *Arabian Nights* who forgot the password "Open Sesame."
(A) Cassim Baba; (B) Aladdin; (C) Benvolio.

16. Which character in Sheridan's *The Rivals* was famed for verbal blunders?
(A) Mrs. Caudle; (B) Mrs. Malaprop; (C) Mrs. Bridget.

17. What queen relates the tales in the *Arabian Nights?*
(A) Sheba; (B) Scheherazade; (C) Isis.

18. Name Shakespeare's greatest comic creation.
(A) Sir John Falstaff; (B) Sir Toby Belch; (C) Uriah Heep.

19. Who is the villain of Shakespeare's *Othello?*
(A) Captain Absolute; (B) Athelstane; (C) Iago.

20. Who was preceptor of the Knights Templars in Scott's *Ivanhoe?*
(A) Major Bath; (B) Capt. Bobadil; (C) Brian du Bois Guilbert.

21. The name generally for a landlord is derived from that of the landlord in Farquhar's *Beaux' Stratagem*. What was his name?
(A) Tom Bowles; (B) Autolycus; (C) Boniface.

22. Name the American patriot in Dickens' *Martin Chuzzlewit.*
(A) Joseph Andrews; (B) Jefferson Brick; (C) Henry Little.

23. Name the monstrosity in Shakespeare's *Tempest.*
(A) Bumble; (B) Caliban; (C) Lothario.

24. Of which character in *The Rivals* is it said "his courage oozes out at his fingers' ends?"
(A) Caleb Balderstone; (B) Bob Acres; (C) Adam Bede.

25. What character in the *Arabian Nights* was duped for a short time into believing himself Caliph?
(A) Lucio; (B) Ali Baba; (C) Abou Hassan.

26. Who was the deformed monster of Victor Hugo's *Our Lady?*
(A) Quasimodo; (B) Apemantus; (C) Frankenstein.

27. In Dickens' *Dombey and Son* who always spoke of himself as "Joey B," "Josh," "Old Joey," etc.?
(A) Josiah Bounderly; (B) Joe Bagstock; (C) Jonathan Oldbuck.

28. What was Gulliver's first name?
(A) Lemuel; (B) Edgar; (C) Edmund.

29. Name the schoolmaster in Irving's *Legend of Sleepy Hollow*.
(A) Launcelot Gobbo; (B) Enoch Arden; (C) Ichabod Crane.

30. Give the hero of a Goethe poem who sells his soul to the devil.
(A) Faust; (B) Adam Bell; (C) Davy.

31. Who was the merchant in Shakespeare's *Comedy of Errors?*
(A) Absolom; (B) Balthazar; (C) Mercutio.

32. Who was Fagin's star pupil in Dickens' *Oliver Twist?*
(A) Artful Dodger; (B) Daniel Deronda; (C) Goneril.

33. Of which legendary king did Tennyson write?
(A) Oberon; (B) Lear; (C) Arthur.

34. Who is the heroine of Byron's *Bride of Abydos?*
(A) Zuleika; (B) Abdiel; (C) Mary Anerly.

35. Who was always "waiting for something to turn up" in Dickens' *David Copperfield?*
(A) Parson Adams; (B) Wilkins Micawber; (C) Gonzalo.

36. Who is the heroine of Hawthorne's *House of Seven Gables?*
(A) Phoebe Pynchon; (B) Consuelo; (C) Medora.

37. In Milton's *Paradise Lost* who was "swiftest of the cherubim?"
(A) Argante; (B) Zophiel; (C) Mariana.

38. Name the oafish country squire in Goldsmith's *She Stoops to Conquer*.
(A) Bardolph; (B) Paul Clifford; (C) Tony Lumpkin.

39. From which character in the Bible is derived a common name for a waiting-maid?
(A) Abigail; (B) Amelia; (C) Sarah Gamp.

40. What widow sued Mr. Pickwick (Dickens' *Pickwick Papers*) for breach of promise?
(A) Lucy Ashton; (B) Mrs. Bardell; (C) Mrs. Grundy.

41. Name the hero of Cooper's *The Spy*.
(A) Peter Bell; (B) Barkis; (C) Harvey Birch.

42. Name the one-legged schemer in Dickens' *Our Mutual Friend*.
(A) Silas Wegg; (B) Nick Bottom; (C) Matthew Bramble.

43. In Milton's *Comus* what is the name of the river-nymph?
(A) Amine; (B) Sabrina; (C) Ariel.

44. Who was George Eliot's heroine in *Middlemarch?*
(A) Belvidera; (B) Dorothea; (C) Meg Dods.

45. Who was the sneak in Wilkie Collins' *Moonstone?*
(A) Godfrey Ablewhite; (B) Blifil; (C) Sir Benjamin Backbite.

46. Name the witch in Spenser's *Faerie Queene* personifying Intemperance.
(A) Celia; (B) Dora; (C) Acrasia.

47. The heroes of Thackeray's *The Virginians* are Henry Esmond's grandsons. Who are they?
(A) George and Harry Warrington; (B) Box and Cox; (C) Sally and Sampson Brass.

48. Who in Dickens' *Pickwick Papers* "was given to mince pies and sleep"?
(A) Slender; (B) Richard Amlet; (C) The Fat Boy.

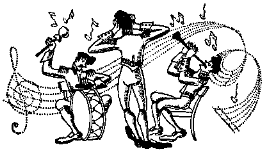
49. Name the hero of Byron's *Siege of Corinth*.
(A) Front de Boeuf; (B) Jeremy Diddler; (C) Alp.

50. Who was Philip's (*The Adventures of Philip* by Thackeray) sweetheart?
(A) Charlotte Baynes; (B) Fanny; (C) Ginevra.

—A. I. GREEN

THE FIRST JAZZ

THE CONCERT MISSED FIRE BECAUSE YOU CAN'T INSULT THE TASTE OF THOSE WHO HAVE NONE



THE gentleman who, under the name of Louis XVIII, for a time sat on the French throne, was already thirty years old when Frederick II of Prussia died, and he outlived the Emperor Napoleon I. But the blank page in history assigned to this figure who was the contemporary of great men and whose life impinged upon great events only serves to prove that greatness is not catching. An embonpointed Bourbon with pendulous lip and double chin, which in his kingly haughtiness he did not think it necessary to conceal, he included among his other defections a musical sense as apallingly destitute as could have been the prerogative of any anointed. This would not have been important, save that reactionaries like to gloss over their hostile attitude to life by an assiduous cultivation of the arts, particularly of music.

As it happened, the musical world of the time was intrigued with a certain Beethoven who was held to be the most modern and outrageous of all composers. But, in his position comparable to that of Gustav Mahler before the World War, attendance at his concerts was considered "chic."

Nobody will be surprised, therefore, to hear that the Court at St. Cloud, during the performance of the Seventh Symphony, chattered animatedly and during the Adagio snored soundly and sonorously, upon which the conductor in despair, and in order to make an end of the profanity, took the last movement so quickly that the excellent musicians of the Royal Orchestra were quite unable to follow his time, and till the end the players of the wind instruments remained several bars behind. That this outburst did not cost him his post was only because not one of the highly born persons present noticed it in the least! They thought it was so written and that was how modern music sounded.

The Director of the Royal Conservatoire at that time was Luigi S. Cherubini, one of the most important musicians of his time, passionately devoted to his art and very susceptible in regard to its honor. He felt the wound to the feelings of his colleague as if to himself. When therefore he received the command to provide music at the Court for the coming

Carnival he resolved to meet high society on its own level. And so he turned his orchestra, the excellent Royal Orchestra, into a super life-size jazz band. The violinists received children's fiddles, the flutists and oboists were given market-fair whistles and "mirlitons" of all sizes. For the brass he substituted small trumpets; in place of 'celli he had jews' harps. Nothing was lacking.

At last, at St. Cloud, the musicians filed into their places in the concert hall with their new instruments. The marquises raised their eyebrows, and the newly-restored counts, barons, viscounts, dukes, marshals and holders of orders murmured discreetly behind their hands. But as His Majesty, the son of the Lily, the Lily itself, gave no sign of discomposure at this sight but preserved his usual phlegm, the Court naturally remarked nothing. The conductor, one of Cherubini's master-pupils, raised his baton, began the Overture to *Iphigenia in Aulis* by Christoph Willibald Gluck—and there followed a frightful, incredible uproar, worthy of the barbarity of the age. Tin trumpets clattered, pipes howled, the jews' harps hummed like a legion of hornets let loose. There was a rattling like that of hail on the roofs; a prodigious squeaking of mice, neighing of horses, roar of oxen—all rhythmically parodying the great notes of Gluck's heroic style. Jazz anticipated and of the purest blood!

Uproarious laughter shook the assembly and resounded from the delicate walls and decorated ceiling of the great hall. Etiquette was forgotten, but Nature broke loose, and that was something! And how he enjoyed it, the gentleman on the throne! That was a dish he knew how to relish. Children's trumpets and the squeaking of silk paper flutes were well suited to what a century later was called his "mentality." The royal family laughed till their sides ached, perfumed hands pressed against velvet-covered thighs, and they felt entertained as they had not felt for years.

As the hellish performance closed, the illustrious circle shouted for joy. Only one man, long-nosed, dark, in the corner of the hall, stepping from one foot to the other, quivered with shame. Stay there he must, it was part of his duty, otherwise this Italian and man of genius would have fled from the barbarous spectacle. All his nerves were on edge, the joke which he himself had arranged, went apparently beyond his deepest feelings. And he had discovered that certain things which in imagination seem quite harmless, when put into practice become unbearable, and that what seems only gay and merry at a trial, takes on a mocking and horrible form when by its performance, the hollowness of human morality is made evident. It is unnecessary to say that the man was Cherubini. But to his noble audience, this was his greatest triumph. He received grateful compliments and a gilded conductor's baton.

—Arnold Zweig

ANY OLD BONES TODAY?

COME ON, FELLOWS, AND GRAB A PICK—THERE'S DINOSAUR BONES IN THEM HILLS

A COUPLE of years ago the American Museum of Natural History in New York received an urgent letter from a man in Peru who said he had captured a strange monster which he was willing to sell for $30,000. He enclosed a minute description of his find and waited impatiently. Receiving no answer he wrote again and again, insisting that the $30,000 be forwarded immediately because his pet was now tied up down at the local railway station and eating its head off and costing plenty. Still the Museum authorities sent no check, only a polite note thanking the intrepid hunter but declining his valued offer. The reason for this was that the description of his find, which followed closely the wording in an encyclopedia, clearly indicated that he had a glyptodon, the giant armadillo which has not been seen for the last 25,000 years.

His was a naïve fake, of course, but every year scores of perfectly sincere farmers, students, building contractors, cowboys, hunters and mine superintendents hopefully lug sacks, boxes, and automobile loads of old rocks and bones to scientific authorities for appraisal. Because museums back elaborate expeditions to all parts of the world they feel that their finds should be worth money—a lot of money. And somehow, nobody quite knows how, the impression has got around that the proper sum to pay for such valuable fossil bones is $30,000. Nine out of ten times the finders are honestly and earnestly under the impression they have something of scientific value. The other time they are just trying to make a little money out of some worthless bones they have unearthed in the back pasture where Nellie, the old grey mare, died twenty years ago.

But about one out of a hundred amateur paleontologists has something of real value—and this fractional possibility is too great to be overlooked by the scientific world. Not that such specimens ever bring anything like $30,000. No scientific endowment warrants such a payment. To be of value in scientific work fossils —which look and feel pretty much like ordinary stones to the layman—must be "authenticated." That is, they must be accompanied by a minute description of the locality and strata in which they were found. A "funny-looking stone" passing from hand to hand may travel thousands of miles before it reaches anyone curious enough to submit it to scientific examination. So very often amateur finds are worthless by the time they reach a museum. About the highest sum ever paid an amateur fossil hunter was $2,000 for a carefully excavated group of bones. The average reward for a genuine mammoth tooth or dinosaur bone or saber-tooth tiger jaw is only about $15-20. Not that this stops many home-grown scientists. Their interest is spontaneous and sincere. They are fascinated by the picture of a primeval world over-run by giant monsters, and quite willing to accept as a token thereof a few handfuls of cold stone.

You might think paleontology was a pretty remote and uninteresting science, but due to a couple of movies—*The Lost World* in 1925, and *King Kong* in 1933, and a half-dozen comic strips presenting moderately accurate representations of prehistoric monsters every few days, lots of people, including kids taking geography and elementary courses in geology, keep an eye peeled for old dinosaur bones lying around loose in vacant lots, excavations or farm lands. As a rule their chances of making a find are pretty bad—and yet only a few years ago a handful of mastodon bones turned up at 242nd Street in New York City when a steam shovel was excavating for an apartment house. Fossils have been found in every state in the Union—on mountains, in swamps, in desert lands and under city streets. It is true that those of the greatest scientific value occur in the Rocky Mountain region, but this does not discourage your amateur digger when inspired by the thought that he is holding in his hand a piece of real, genuine, honest-to-goodness 70,000,000-year-old dinosaur.

Sometimes people ship in quite heavy exhibits from distant points and then indignantly demand that they be returned immediately when the museum declares them to be worthless, or fails to come up with the required cash settlement. This may prove very trying, as in the case of the lady in the Middle West who carefully bedded an ordinary granite boulder in excelsior and sent it to a museum by express. When the museum protested that her find was worthless she was pretty hurt about it, but refused to answer any question as to what should be done with her property. Then, ten years later, the woman having died, her heirs brought suit against the museum for having "stolen" a valuable fossil. By this time the boulder had been thrown out, and the authorities had some little trouble proving they were right. Since then nothing has ever been thrown away without the owner's consent in writing, even if it is only a T-bone from a twenty-year-old steak.

Then there was the matter of the

South American who appeared one day with a truck and two large packing cases full of "curios." The man said he was an aviator flying for a South American army, and asked one of the biggest American museums to keep his boxes for him awhile. This was some years ago, and the man has never been heard from since. Nor has the government he said he was employed by ever heard of him. But the packing cases are full of priceless relics, fossils all beyond a doubt entirely genuine, and many superior to any ever found before in South America. Thus, mysteriously, another page in the history of a lost civilization came to light and the attention of trained observers.

Paleontologists turn up in the darndest places. If you look at a map of Montana you will see that down in the extreme southeast corner of the state there is a blankish-looking square marked Carter County whose chief town is Ekalaka. The biggest excitement in Ekalaka is the Carter County Geological Society, all members of which are rabid fossil diggers. The result is that Ekalaka is the most mammoth-, dinosaur- and mastodon-conscious county in the U. S. A. Some fifty members of the community collect fossils in their spare time. Not that anybody gets paid for these specimens. These people are real scientists, in the truest sense of the word, even though few of them have college degrees, and many are retired cowboys.

All sorts of people suddenly develop the scientific urge. A few summers ago young Quentin Roosevelt, in southern Arizona with some school companions, got to poking around in a cave and came back to the Museum of Natural History in New York with a "bone" which turned out to belong to a species of four-horned antelope not known until then. The boys were so excited that they returned the two following summers to make further explorations.

Newspapermen appear to be even more interested in seeing a real, live prehistoric monster than are the scientists themselves, and are forever seizing on stray bits of gossip, rumor, and legend and presenting them to museum officials with a sort of cheerful idiocy. For example, not long ago several large museums received a cable from Panama to the effect that a live ichthysaur was stranded on the beach. Did anybody wish to "make a statement"? The answer was "no," inasmuch as the last ichthysaur disappeared about 70,000,000 years ago, quite a spell before reporters and wire services were thought of.

Another fancy which seems to strike city editors on dull days is that recently returned paleontologists have brought back from the arctic the frozen remains of some prehistoric monster and are sitting about feasting on "mammoth steaks." It is true that frozen mammoths have been found in Siberia, but they have furnished no steaks for anybody but wolves, who are not particular. Although the remains of these animals indeed have been preserved in solid ice for some 25,000 years, the flesh putrefies instantly on contact with the open air. One hardy explorer did try boiling a piece of mammoth skin, thereby brewing a little soup, but it made him deathly ill. As for steaks—the kind scientists like are found in the corner butchershop.

Possibly the most fantastic instance of capitalizing on this wish-fulfillment weakness on the part of newspaper people occurred back in March, 1922, when the now-famous Patagonian plesiosaur reared its snaky head above the deeps of a back-country lake in the Andes. Reports sent out to the world's newspapers described its gigantic tail and its dreadful, earth-shaking roar. In a few days an expedition left Buenos Aires to capture this monster from another age. Realizing that it would be impossible to trap so powerful a beast and bring it back alive, it was decided to kill it and bring it back embalmed. So, in spite of the entreaties of the Buenos Aires Humane Society which objected to this plan, the expedition carried enormous two-gallon hypodermics and vast drums of embalming fluid. Of course no plesiosaur was ever found, nor was anybody found who had actually seen it. It was just one of those things. So the scientists and newspapermen and photographers all went home after a very pleasant vacation at the expense of South American school children and letter carriers who had contributed pennies to make up the 7,000 pesos needed to capture the monster. An amusing sequel to the Patagonian monster legend was an admission a few years ago by an American living in Patagonia that he had deliberately started the rumor among the natives as a publicity stunt to bring tourists and business to his out-of-the-way part of the world. No, he was not selling subdivisions. He was just bored and lonely.

Something which is going to confuse researchers hopelessly some day, unless they remember about it, was the wrecking in the 1860's of a boat off the coast of Long Island, for it contained great quantities of South American fossils collected by Louis Agassiz—fossils of animals which never lived in North America. Some day this wreck will break up, the tides and sand bars will change and Long Island will have a fossil hunt all its own. And the scientific men of that day will have a good deal of explaining to do.

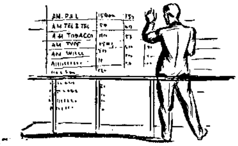
All you need to start out as an amateur paleontologist is a small pick, a shovel, a whisk broom, some fine brushes, a few awls, a strong back, and a willingness to walk up hill and down for days at a time in all kinds of weather. Of course you should know what you are looking for, too. But that is more complicated. By the time you really know precisely what you are looking for you are no longer an amateur.

But even if you don't know everything you can have a lot of fun.

—Creighton Peet

HOW TO TALK WALL STREET

DOS AND DON'TS FOR ONE WHO WOULD CONVERSE WITH A MAN IN THE STREET



Let us take the "Long View," as the Russians say, and imagine that you are a personable young woman adorning a dinner party. (No, you need not buy a new dress for this one—just wear that same old white thing.) Your right-hand neighbor, it seems, is interested in what he companionably calls "The Street." You know nothing about it, and care less. Yet you can tell from his star sapphire ring, and from his general well-fed appearance, that he is a fellow of consequence. A girl cannot afford to ignore fellows of consequence in these days of swift change. What are you to say to him?

(1) Don't say, "How is the market these days?" For it is his firm conviction that everybody in the world—this includes Patagonians, Eskimos, and lifers at Alcatraz—is hanging on a ticker tape from Opening to Closing. He will regard you with the mild curiosity of a chicken inspecting a new but inedible bug, conclude that you are a poor white who has never seen a newspaper, and give you the back of his neatly brushed head for the balance of the meal.

(2) Don't say, "How on earth do you Wall Street men ever learn what all those stocks and things are *really* worth?" That would be putting your finger on the pulse of Life Itself. He doesn't *really* know, any more than you do—and I mean *really*.

(3) Don't say, "I think Mr. Roosevelt is wonderful!" Save that for the ride home in the taxi. Girls have told me that merely to say, "I think Mr. Roosevelt is wonderful!" applies a swifter Chill than if you had said, "Don't look now, but I think my husband is following us, and he always carries a gun." Save Mr. Roosevelt for a real emergency.

(4) Don't say you can't understand why all the brokers lost all that money six years ago, when they were all right in on the ground floor and knew what was going on. In the first place, most brokers have about as much comprehension of underlying economic forces as a crawfish has of needlepoint. When things are good, they're just *good*—that's all. When things are bad—they go to the Polo Grounds or the Stade Yankee. Of course, any broker can recite over the telephone.

By that I mean he can give you a rapid verbal fox-trot on "Conditions behind the move," either up or down. These steps include: Car Loadings for the Quarter, War Abroad, Strikes, the Soy Bean Situation, Big Steel, Exchange Regulations, the Business Index, Color in Dinner Clothes, and the proposed disbarment of the Sand Wedge in International Golf Competition. When he concludes with a hearty, "That's about the picture at the moment, we think," you will hang up with the dazed feeling that all is well with your holdings. It may take you years, tears and dollars to realize that brokers are innocent victims of their own hypnosis. If they were not, they couldn't possibly be brokers. Just what they *could* be will lead you into many fascinating bypaths of speculation, and probably cost you your job for daydreaming, chin in hand.

(5) Don't say you think Inflation is dangerous. He is apt to pin you down and say "Why?" And to remind you that you appear to be doing pretty well by yourself right now. The first thing *you* know, he will have you convinced that you have been living in a sinful state of Inflation for three years, and liking it.

(6) Don't mention any of the six most prominent Wall Street Operators whose names you recall hearing most about during the Gold Rush. Your neighbor will immediately suspect one of two things: (A) That you do not follow the market, hence know nothing about its operations or its personalities, or (B) That you know *everything* about it, and are merely trying to rub salt in old and grievous wounds by recalling figures whose careers should furnish morals of some sort or other for the youth of today.

(7) The same applies to your neighbor himself. Don't ask him if he is a member of the Exchange. Many financiers whose activities make them legitimate game for salesmen of right-hand-drive cars and air conditioning prefer to remain as nominal spear carriers in the wings of the Wall Street Opera House. But when the shooting is over, and the cocoanuts are being counted, these are the boys who will seem to have been strange children of Fortune. They may act dazed and incredulous about the whole thing, but don't let that fool you—they cut their financial eye teeth on the tombstones of our grandparents!

(8) One more caution on the score of the personal. Don't say to the gentleman, "If *you* had a modest sum of money right now, what would you do with it?" For he will give you a light answer. Something like, "Spend it on a hat for that pretty little head, Missy!" Or "God knows!"

But in the course of the evening he will contrive to let you know what firm he is connected with, along with some such deprecatory comment as, "One of the oldest and most conservative in the Street—you know it, of course." He knows then that you will telephone him the very next day, from the mere fact that you are a woman, and curious as hell. We will draw the curtain of charity over the succeeding acts of the drama, which are tinged with that sadness of inevitability which marks most of the ageless Greek offerings.

But, you say, there must be *something* that I can offer! *Some* grounds on which I can set foot that will lead to a meeting of minds without giving away my untenable position?

All right, let us see. To begin with, you have got to enlist his interest. Well, his interest seldom extends past the last six pages of the newspaper—reading from back to front, Chinese fashion. (You can skip "Real Estate," "Help Wanted," and "Boats for Sale," too.) This means that you have got to cull your leads from things that affect finance, with the possible exception of golf.

Suppose, then, you put out a feeler concerning Mr. Roger Babson. Most of the boys were laughing ha-ha-ha at Mr. Babson and his Old Wives' Tales of a market crash for some months previous to the last terrific detonation south of 14th Street. Now Mr. Babson has just written another book titled, rather cryptically, *If Inflation Comes*. (Stokes Co., New York. 204 pp. $1.35, if you insist.)

It would be interesting to learn how many of the boys have heard of it . . . how many have read it . . . and how many of them consider it as just another cold cylindrical commodity from the nearest delicatessen, sliced exceeding thin. Try it out and see—you don't have to commit yourself on your own position.

Another surefire item is this: "I have an idea that the S.E.C. has served its purpose." You should get a pretty positive reaction to this one. If he whirls on you, with an alarming swelling of the neck above the collar, you had better add quickly, "I don't see why they didn't abolish it long ago." (After all, you wouldn't want to precipitate a heart attack at a party, just for the sake of making an impression, would you?)

A sedative follow-up might be along the line of high grade bonds. Merely remark, "It seems to me that high grade bonds are selling too high right now."

If he happens to be a stock man, he can view high grade bonds with an indulgent detachment. And if he goes around the bond pasture in close to par, he will pull over until the butler can hardly slide a piece of Melba Toast between you. This should take care of him until a muffled grinding informs you that the other guests are engaged in a last ditch struggle with the Roquefort and water crackers.

"Hot Money" is one of the best popular titles that has come out of Wall Street in years. Ask your dinner partner if he views the five billion dollars invested in American securities as potential dynamite to an orderly market. This will worry him a little.

He will be torn between his natural desire for as lively a market as possible, and the memory of a burning sensation in the vicinity of his shirt tail of a few years back. He wishes to encourage the one, and to avoid a recurrence of the other. His cogitations will prove interesting —even though they may lead you nowhere.

"Are margin requirements too high —or too low?" This one will challenge the fellow's imagination. And his conscience.

If he says they *could* be increased, in order to keep out those who have no more business in the market than a flame-thrower in a varnish vat, he is apt to alarm his audience. You might infer that things are not so rosy-dozy as they now appear on the surface. In your wide-eyed, innocent way you are apt to tattle it around, and this damps the speculative ardor.

On the other hand, if he says they *should* be lowered, people will be wary of a come-on. They have been warned repeatedly that "When the General Public gets in—Profits fly Out of the Window."

This query, in fact, is apt to throw your neighbor into a fit of financial schizophrenia, a type of psychosis characterized by loss of contact with the environment and sudden disintegration of the personality. We would avoid this one unless hard pressed for talk.

An interesting topic that invests you with considerable charm is this: "Tell me how you happened to select Wall Street as your life work?" The chances are that he will not know.

Every year, thousands of personable young men appear from out of the blue—like moths. Their eyes are bright, their ties are right—the dew is barely dry on their diplomas. For months, or years, they spin about in small, rapid, concentric circles in brokerage houses. Then those with the whitest Teeth, the strongest Wings, and the best Connections spiral into the dizzy heights peopled by the Two-Telephone Men. From there it is only a step to Corona-Coronas, Inside Pool Information, and white edging on the waistcoat.

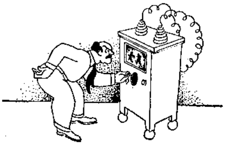
Retrospection on those early, bitter struggles is pleasant and warming to a man. If you play your cards right, your neighbor may even take you behind the scenes and tell of sanguinary encounters in the dark woods of Wall Street. Of those stirring pioneer days when every oak concealed an Indian with a tomahawk or a corn-fed Senator with a coonskin cap and a blunderbuss loaded with subpoenas and a list of cute questions.

"Those were the days," he will sigh, with a reminiscent tilt of a liqueur glass. But if a door happens to bang at that particular moment, he's apt to jump right out the nearest window, overdrapes and all. In talking Wall Street, you will find that Looking Ahead is far more fun—and infinitely more exciting—than Looking Back. In which respect it is no different from any other Business—or Art!

—Stanley Jones

MOVIES ON THE SPOT?

WILL TOMORROW'S STAGE DIRECTIONS READ: "ENTER, TELEVISION; EXIT, THE MOVIES"?



"LIGHT! More light!" cried Goethe as lengthening shadows of eternal darkness crept across the great philosopher's death bed.

In a Berlin theatre television engineers some weeks ago brought to a screen eight feet wide and six feet tall a picture, accompanied by sound, flashed through the air from a nearby studio.

Remember the dimensions, for they are important. The Germans bombarded a cathode ray tube with 20,000 volts of electricity, thus producing an intense, bright image, made possible by a $100 tube having a life of perhaps a dozen hours, which they enlarged by means of a $150 lens, both contained within receiving apparatus costing $1,000.

There you have the television problem as it stands today. Science can give you television on a large screen at an exorbitant cost, but the apparatus now available for the home, at a price anywhere within reach receives and re-creates pictures measuring only seven inches by twelve inches. But can you imagine the family, with perhaps a few guests, huddled in front of the tiny screen, straining all eyes to follow flickering images as their human prototypes perform before the microphone and pickup apparatus of some studio?

Television, as Goethe, needs more light!

Obviously, we do not require screens for the home duplicating in size that shown in the Berlin theatre. If we draw from the experience of sixteen-millimeter movie fans, a screen two feet square should prove satisfactory. You would not pay $100 for a television set providing a picture no larger than the page of a book; but you might consider digging up $250 should the picture area enable you to relax and enjoy the action without eyestrain.

Fortunately for science, and unfortunately for the immediate profit of manufacturers, the human race is lazy. The men holding the money bags, who in America already have poured more than thirteen million dollars into television experimentation, know that once you can sit in an easy chair, turn a switch and see televised pictures on a screen of adequate size, you will buy millions of sets, provided further they are reasonably priced. And not until then.

Just around the next turn in the road forward, which we may reach in a year and it may be five, this new industry overnight will leap to billion-dollar proportions as manufacturers attempt to replace thirty million radio sets with television receivers.

What will it mean? Revolution in entertainment, of course. But will television supplant the movies, which today give employment to 254,500 persons and provide entertainment for 100,000,000 every week in the United States alone, as we know them today? May we reasonably expect to receive programs originating in New York, Philadelphia, Chicago and Hollywood over the great networks, whose stations are linked by telephone lines? Or will they come from individual stations using motion picture film, local troupes of actors and occasionally costly talent from New York theatres and Hollywood movie studios?

What does the two billion dollar movie Goliath have to fear from the television David?

Should you, and 99,999,999 like you, decide to remain away from the movies this week, and for several succeeding weeks, this two billion dollar giant would collapse. But will you turn from the movie houses to home entertainment?

To this question I respond with a vigorous *no*, and add as my considered conclusion that the movies will reap huge rewards through television, prospering as never in the past.

At the outset, let it be understood that, partaking as it does of the nature of a motion picture, television automatically will be confined to a darkened room. Therefore, at least in early years, the public must content itself with two hours or so of visual entertainment during evening hours.

There is no reason apparent now, excepting for such momentous events as a presidential inauguration or championship heavyweight battle, why transcontinental transmissions need be attempted. Both because of cost and technical difficulties, television studios first will spring up in metropolitan centers. Further, since the ultra-high frequencies at which television images are necessarily broadcast carry no further than the eye can see, those of you who live in the hinterlands, far from cities, will be denied the pleasure of enjoying sight with your sound for some time to come.

Nor do I foresee the expenditure of a hundred million dollars to establish elaborate program stations. Present studios are adequate, or with modifications can be made so. But the great sweep of motion pictures cannot be created within the four walls of a sound-proof room, nor will the public be long content to hear and see playlets produced by a company of singers and actors. You soon will demand that they deliver to your living room dramas and comedies which can only be produced by experienced motion picture companies.

How they will be produced remains for the future to disclose. Today Hollywood's producers are hiding their heads in the sands of indecision. Excepting for a handful of sound engineers and artists, movie executives look on television as a vague something which may reach out its long arm to embrace them at some distant time.

Luckily for them, all competing arts possess strong affinities when utilized, and radio already has proved a great source of ballyhoo for stars and pictures. Moreover, the public demands mass entertainment; man is a gregarious animal, and cannot long endure to remain alone.

In the early development motion pictures undoubtedly will serve as sustaining features after the manner of transcriptions in audio broadcasting today. We know that television reproduces better when the subject scanned is motion picture film, largely because of the better lighting provided and the high degree of perfection attained in camera lenses which admit the light to the film. Thus, oddly, a movie camera can supply to the television analyzer film whose qualities of light and shadow are vastly superior to those obtained by direct pickup.

Coming of television presages war with the movies, but this should bring no great conflict, involving expenditure of millions. Consider the stars who are top-notchers both on the air and in pictures: Fred MacMurray, Jack Benny, Helen Hayes and the greatest find of the last year, 14-year-old Deanna Durbin. Popularity in one field, in these and many other cases, brings huge profits and no inconsiderable international publicity to their backers and sponsors in the other. And so it will be with television.

Profits from television will accrue to motion pictures through several means.

First, there are the pictures of six and seven years ago which, while popular and profitable, yet reached only a small part of the public. Suppose Al Jolson were brought into your home tonight in *The Jazz Singer*. Would he revive your interest? Indubitably.

Loan of stars for short programs in the studios likewise will follow, but for several years, unless these programs are enscribed on film and made available to many stations, only those in and near large cities will find themselves within reach of television.

An infinity of programs will be presented from studios, but can you picture Eddie Cantor's Texaco Town crowded within the three walls of a stage, or Jack Oakie's crazy college confined to a single room?

It is with such programs that my movie friends expect to land in television with both feet. Possibilities are unlimited. For many productions elaborate sets are constructed, both indoors and out. With few changes, these may be used as backgrounds for television pictures. In four days, at an additional cost of $25,000, a radio troupe can produce a complete act ready for international release a week or two later, the entire show skillfully directed and filmed under adequate lighting conditions against realistic backgrounds. Thus they acquire the sweep of a photoplay.

As partners with the theatres, the studios will neither give their pictures and stars to television gratis, nor will they permit the televising of pictures on theatre time. Until revenue from television is adequate to cover threatened losses in theatre patronage, televised feature-length motion pictures may be expected only after theatre hours.

Distribution of programs on celluloid will make possible releases at favorable hours on the Atlantic Seaboard, in the Middle West, the Rocky Mountains and on the Pacific Coast, instead of at fixed staggered release hours to meet time differences, as is the practice with network radio releases.

Why not chain programs from a single station? We find the answer, at least for the present, in costly carriers for the high frequency signals—systems bearing such mysterious names as co-axials, hollow conductors, dielectric conductors, guided wave channels; reflecting, refracting, diffracting, absorbing arrays; beam transmitters and receivers.

To establish a network of stations fed by the co-axial cable would cost many, many millions. Such a line recently installed between Philadelphia and New York, cost $1,000,000. A network of say 50 stations, spreading from coast to coast and from Canada to Mexico, would require 10,000 miles of cable, 1,000 relay stations. The outlay for transmission alone would approach the hundred million dollar mark!

Little do we know of the limitations of equipment now at hand, of the mysteries yet to be solved. We do know that despite expensive research, we have achieved only a seven by twelve inch picture; and even that image costs from six to ten dollars a square inch, and some two dollars an hour to look upon. That's more costly than a box at the opera, and how many of us can afford such a luxury?

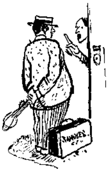
No, the movies need fear nothing from television. Their two billion dollar investment in studios, distributing facilities and theatres is safe. Nor will talking pictures come to your house over the air, in the popular sense, until the entire receiver, sound and picture, costs less than $300; and can be operated for little more than present radio receivers.

Meanwhile, we television engineers in our never ceasing search for some means of re-creating in the home larger images than can now be reproduced with clarity and at low cost —we, as Goethe, will continue calling for and seeking "more light."

—Dr. Lee de Forest

A THING TO STIR WITH

ONE WONDERS WHAT THE CANVASSER BUYS ONE HALF SO PRECIOUS AS THE STUFF HE SELLS



I'D BEEN thinking about learning a trade, so when the man came to the door and asked for a minute of my time, I said: "Sure, come in. My time is bread cast upon the water."

He came in, dead pan, and I asked: "You should laugh at my jokes, shouldn't you?"

"Didn't catch it," he said. "You mumbled."

I looked at him in amazement. "Is that any way to gain the goodwill of a prospect? Telling him he mumbles."

"You did mumble."

"Makes no difference," I said. "You should have apologized, and explained that you're hard of hearing. Taken it on yourself. You've already antagonized me. No matter what you've got to sell, now, it's no use."

He said all right, and started to leave. I hadn't expected that.

"Wait a minute," I said. "Aren't you going to break down my resistance, win my confidence, overcome all obstacles, and make a sale?"

He said it hardly seemed worth while to try, after I'd said it was no use.

"I was only kidding," I soothed. "Come on, what's in that sample case? Let me see. Please do. Pretty please."

"It's something for the kitchen," he said. "You wind it up and put it into something on the fire that you want stirred. And it stirs it."

"Smoothly, rhythmically, efficiently," I said, "giving a stir far superior to that achieved by even the most skilled human hand."

"Say," he said, "that sounds all right!"

"How much?"

Well, we haggled around for a while, and I finally bought his outfit, including twenty stirrers, for twelve bucks. This was after I again had explained what a disappointment he had been, because I had expected to learn something about salesmanship by letting him in, and he had said, tut, tut, that I certainly knew much more about selling than he did, never seen such native ability.

Later I decided that what I had done had been a pretty simple minded thing to do. But still, life is gayer now; you've no idea what fun it is to have something of your own to offer people who come to the door with things.

—RICHARD ADAMSON

HOMAGE TO TAKAMINE

BEEF GLANDS AND CHERRY BLOSSOMS WERE JOKICHI TAKAMINE'S GIFT OF FRIENDSHIP

JOKICHI TAKAMINE, a brilliant young Japanese chemist, was sent as a representative of his government to the 1884 New Orleans International Exposition. He returned to Japan several months later with his head full of ideas about the use of nitrate fertilizers so greatly needed by his people. With the tremendous energy that characterizes his race, Takamine set to work to educate the Japanese to Western ways. But Japan was just awakening to science, and his suggestions were considered with mistrust. Interests in America invited him, so he returned to the United States—this time to introduce Japan to America.

He built his first laboratory at Peoria, Illinois, in an old carriage house back of his modest home. Here he would work for long hours—late into the night, oblivious of all else but his test tubes. When at work, he would stuff his coat over the communicating phone, so that he could blandly assure his American wife that he had never heard her repeated calls for dinner. Although he was most generous and gentle with his assistants, and gave encouragement and help to his young Japanese countrymen in this country, he was a hard, self-imposed taskmaster, who scarcely knew the meaning of rest.

He had brought with him from Japan an enzyme, which, through his secret process, would liquefy six hundred times its volume of carbohydrate. This he called Takadiastase, and gave it to medicine for the relief of starch intolerance. Its enormous influence was rapidly appreciated and his name spread throughout America as a contributor to the starch sufferer. Years later, the British *Lancet* was to write on the benefit that the diabetic patient would receive from the use of Takadiastase. Had this been his only discovery, Takamine would have remained one of the great contributors to present-day medicine, but it was the lesser of his contributions.

He had seen death and wished to stop it. He had seen people lying on the operating table in a welter of blood. He had seen people suffering exquisite pain as the surgeon's scalpel cut through the tissues where the local anesthesia had been absorbed. He had seen the hay fever sufferers pitiably sneezing and weeping, and the asthmatics gasping for air like fish out of water; but more than that, he knew the dread which every surgeon had while working on a cardiac case. For, if the heart stopped with the patient on the table, when cardiac massage was insufficient, when rectal dilatation was of no avail, when oxygen could not support the heart, the patient was doomed. And so once more in his meticulous Japanese way, the little man busied himself in his laboratories. From dead cattle he hoped to get the elixir of life. He centralized his work in the master glands, the adrenals, situated above the kidneys. These glands sustain the fundamental body function, known to the physician as thermogenesis, which is essentially the process of generating heat in the animal body. They are composed of two elements which differ in their development, structure, and physiological processes. The smaller of these elements, the medulla, comprises essentially nervous tissue and chromaffin cells, the latter giving out adrenalin under the stimulation of the former. Adrenalin, on reaching the lung tissues, clutches the oxygen from the air and becomes an oxidizing enzyme, which converts hemoglobin into oxyhemoglobin. The oxygen which it carries is converted from ordinary molecular oxygen into activated oxygen O_3. Locally, it works on the myoneural junction and all structures supplied by the sympathetic nerves except the sweat glands. In proportion to their size, the adrenals have a greater blood supply than any other tissue in the body, and are essential to all forms of the higher types of life. They exhibit the only proof of secretory nerves to a ductless gland. Other scientists had worked on these glands, but no one had separated the adrenal hormone to a workable degree so that medicine could rely upon it.

In 1901, after years of arduous labor, Takamine finally succeeded in isolating adrenalin. The crucial test of this discovery soon came, for a woman lay dying. Through the polished steel hypodermic needle flowed his beef gland—and her life was saved. The dead animal had restored to life the apparently dead woman. Adrenalin chloride was born. The first hormone was isolated, and Takamine's name spread like wildfire over the civilized world. Forever after, physicians were to give thanks to the small Japanese, who, in his quiet laboratories, had fought one of the great fights against disease and death. For now his weapon could be used to combat Addison's disease, the dread malady that had set at nought medicinal aids. Hemorrhage no longer held its terror for the surgeon. Adrenalin, when used in the treatment of heart failure, whether from dental anesthesia, surgical shock, drowning or electrocution, was destined to save thousands of lives—a living tribute to his skill. Discouraged asthmatics could slip off into restful sleep. His drug would be the turning point when dangerous serums produced their shock. So he took his place among the immortals of mankind and reflected glory on the Land of the Rising Sun.

But Takamine's interests were not limited to science alone. Friendship between the nation of his birth and of his adoption was a problem that deeply concerned him. Consequently, he sought an opportunity to bind more firmly the international sympathies of Japan and America. He must show America the beauties of Japan. While color and creed may differ, all races can find a common meeting ground in the appreciation of beauty. He found this opportunity through the good will of Mrs. Taft. In 1909 he presented her with three thousand Japanese cherry trees to be planted on the Potomac Drive.

They arrived the following season, but were so infested with insect parasites that the entire lot was destroyed. Undaunted, he cabled Tokyo that another consignment of trees should be carefully selected and watched, and, at the propitious moment, brought to this country. This time the trees arrived without mishap to grace the capital's drives. The trees were selected for their variance and time of flowering so that the capital might be bathed in blossoms for a longer period. Each variety had its own venerable history, and bespoke the admiration of a beauty-loving race. First the *Yoshino* blossomed upon the scene, followed by the *Shira-Yuki* which to the Japanese means snow-white. After the *Shira-Yuki* had dropped their petals, the *Ariake* opened its single large blossoms, white or faintly pink. This to the Japanese is the dawn. Then came the white flowers with pink tinges—named Returning Carriage or *Mikuruma-Gaeshi*. The imperial cherry or *Gyoiko* bloomed last with greenish yellow flowers, which before dropping turned to a clear pink.

Thus, in this flowery pageant, we see the living symbol of a dead man's dream. Through beef glands and cherry blossoms, Jokichi Takamine spun a web of friendship between his countries that can never be destroyed. As long as men suffer, he will be thanked; and in the spring, millions of Americans will pay him tribute in the ideal beauty of his gift.

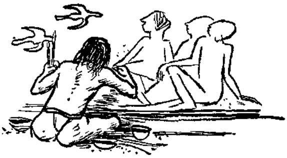
—Dr. Henry George III

ANSWERS TO QUESTIONS ON PAGES 150-151-152

1-C
2-A
3-B
4-B
5-C
6-C
7-C
8-B
9-A
10-A
11-B
12-A
13-C
14-C
15-A
16-B
17-B
18-A
19-C
20-C
21-C
22-B
23-B
24-B
25-C
26-A
27-B
28-A
29-C
30-A
31-B
32-A
33-C
34-A
35-B
36-A
37-B
38-C
39-A
40-B
41-C
42-A
43-B
44-B
45-A
46-C
47-A
48-C
49-C
50-A

PAINTING ON THE WALL

A FAMOUS MURALIST SURVEYS MURAL PAINTING AND ITS FUTURE IN MODERN ARCHITECTURE



THERE is a certain question in the air. It is about the last twenty years in architecture. They will some day be called the nudity period. Right now we have a feeling that we should dress up this nudity. We feel, too, that we should dress it up nobly. We feel that we ought not to lose the profit of these twenty years of abstinence by once again just filling up the walls of architecture with ornaments without other significance than that of filling up the emptiness.

That branch of the Italian Royal Academy which is called *Convegno Volta*, presided over by Marconi until his death, holds a discussion once a year on some timely theme, and last October they asked me to make some remarks to start it off about the place of the plastic arts in modern architecture. There would appear to be a sort of need to go into this question, and because I have done nothing else all my life but paint walls I felt more able to talk about it then and I now feel able to write out my views.

There are two kinds of painting. One is made to be hung upon a wall. The other is born upon and of the wall, completes the wall, and is part of the same body as the wall. I shall write only about the latter, for I need go into easel painting only to show the difference between it and mural painting, which is the subject of this article.

By and large, I should say that these two forms have a relation analogous to that of verse and prose. Like prose, easel painting has an unlimited field. Anything at all that awakens the desire to paint is proper subject for a picture that is to be hung up on a wall in a room. There are no obstacles, no limitations, and anything whatsoever is all right provided the artist who does it has genius. Now mural painting is like verse. That is because it is subject to a discipline imposed by the architect, just as poetry is subject to a convention of language form. The indispensable thing in the aptitude of a mural painter is to understand what the architect's wall requires. For architecture imposes its own proportion on the painting.

The arrangement of the structural elements of the building itself will dictate the arrangement of the motifs of the painting. The muralist's richness, austerity, simplicity or pomposity of language, exuberance, encumbrance with details, use of relations between voids and filled spaces—all these aspects of plan and execution will be governed by the architect. The more the architecture is precise the more it will define and limit the work, but by its very precision it will stimulate the painter's invention the more.

The lines of a monument dictate the pattern of the composition. Sometimes they require the painter to continue them. Again he must exaggerate them by opposing a line complementary to the frame. Sometimes the surface of the wall must be accentuated by a flat pattern. Sometimes it must be broken through by the artifice of perspective. There are actual reliefs which will diminish or amplify the range between black and white, and the color of the material of the exterior frame will determine the palette.

The painting must be upon the wall as is the skin upon the body. Without the gilded reliefs which frame the Veroneses at the Ducal Palace in Venice these works would be detached from the wall. On the other hand, Puvis de Chavannes, with his thinned palette—which he confused with the palette of fresco painting—produced murals which instead of being upon the walls are behind them. Cases of successful treatment are common. The Pintoricchios at the Vatican, the Cossas at Ferrara, the Mantegnas, the Raphaels, and also certain Vuillards give us the impression of fullness. Our painting requires a certain personal quality; the distance of the wall from the spectator imposes a particular style of drawing, an interpretation of different objects, to produce, according to the distance, the same plastic impression. In certain cases the monument must have a decoration at two different scales. Take, for example, in the Parthenon, the scale of the statues of the pediment in relation to the sculpture of the metopes and guttae in the general harmony.

It sometimes happens that there are examples of faulty architecture. But the true painter finds pleasure in such defects because they give him a chance to use his own invention in changing the defects of the building into qualities. There are innumerable happy solutions caused by an ill-placed pilaster or a badly carried wall. For example, the admirable *Miracle at Bolsena* by Raphael would be less remarkable without the window which opens so awkwardly in the typanum.

In mural painting the element of speed of execution counts. Certain forms of architecture must be quickly painted, others slowly. Then, too, when the painter cannot treat an orderly arrangement he must stylize a disorderly one. The painting must adapt itself as a bird's plumage does, to the heavy feathers of the wings, the down of the neck, the crest upon the head, to make the whole a living thing.

I might continue to enumerate the problems which mural painting has to solve, so different from those with which the painter of pictures is preoccupied.

We are sure that a body of doctrine will evolve for our "poetic art" of mural painting, just as formerly a body of rules for perspective was brought into being by Uccello, and just as more recently the doctrine concerning simultaneous contrasts of colors has been established. This, like the art of the fugue in music, always conceals the art of numbers under a different dress. Some people, in the name of liberty, will dispute this statement, but I think they are mistaken. The strict rules of sonnet structure have never frightened poets, and surely if we like these shackles it is because there is no better springboard to throw us off into space. An obstacle which would halt a cab-horse is a jump for the thoroughbred. Clearly, between unshackled easel painting and murals, the height records are held by the latter.

I must say a word now to show how much mural painting is the form of art most nearly corresponding to the heartbeats of man. In the beginning there was no other painting. It was the first crystallization of man's joy at the discovery of life. The cavern of Altamira may convince us. Its paintings—the oldest human works of art—were fitted to the wall, and, as we have seen, seem to obey this law, as if our ancestors were already able to treat relief and to make the forms which they expressed coincide with the bumps of the cavern's walls. Since then man has continued to paint the walls he built. Thus his experience crystallized, as may be seen on thousands of walls in Asia and Egypt.

Pictures came later, and they were painted like walls. Only since Greece has painting been divided into two branches. In the last hundred years the picture branch has been the life of painting, but suddenly, after the perfect accomplishments of Manet, Corot, Daumier, Degas, Renoir, Cézanne, the content of life left the picture, which became an artificial object, no longer a part of ourselves. In the house of today we no longer know where to hang a picture.

On the other hand, the evolution of architecture opens new doors for the arts. For each change in man's estate a new architecture is born. Without written history we may number civilizations by architectural styles. Abandoning the cavern to build our houses, we adopted the straight line, because without it they would not stand up. But this line, which we had to employ in so great measure, is not part of our nature. Animals and men acting freely rarely use the straight line if they can help it. In truth, man is subject to the straight line more than he is master of it. People generally, particularly now, believe it is the line of energy and austere force. But really it is the one of least effort and of laziness. Man has always struggled against this line.

Even when drowned in the profusion of Maya, Khmer, or the baroque design, the edifice conceals its inflexible lines, and during thousands of years has been built with plumb-bob and level. The straight line, since the cavern, has been the basis of all architectures, in spite of the variations imposed by each successive transformation.

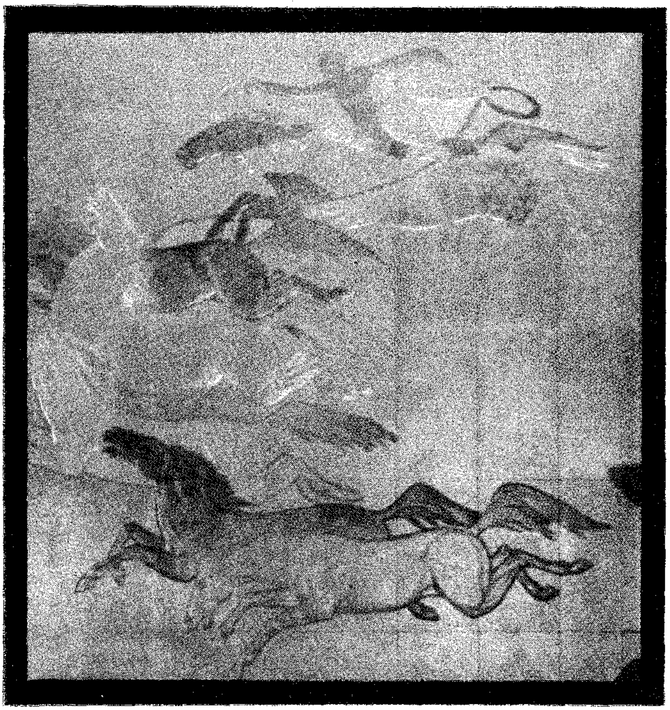
But suddenly, under our very eyes, comes an event of incalculable importance. Man realizes the miracle of building and frees himself from the straight line. To stand up a wall need no longer be plumb. Any curve may be built. Enormous spans without support are possible. A future of infinite charm is opening out before us. And this architecture, still new, more than constructed architecture, will employ mural painting for its completion. If this new architecture is held up en route it will be to pass on the torch of painting and to create with it the work of art of the very near future. Perforce, constructed architecture will remain naked. It will be of interest to the human mind as one of the purest examples of the ability of man to combat necessity. When this strife was less violent, and success easier, as in classic buildings, painting imposed itself because it was more interesting than the formal construction itself. But with other forms of architecture painting becomes artificial.

Present-day architecture has no construction. It has other principles. To paint it we no longer need to conceal the pile of stones under a coating of plaster. Again, our painting becomes natural, as if on the walls of a cave. Its field has never been so splendid. The events of today prove that once more the change which the human shell has undergone indicates the radical change in our civilization, all the old values of which are crumbling.

But it is not my business here to enter upon this ground. Already our life evolves in another atmosphere, and the old hearth no longer exists. It has been transformed into something minute, clear, precious, like a precision instrument. Therein a painted wall is ridiculous, as the walls no longer exist. Perhaps we may still see hung upon them a picture of immense meaning but of small surface. (I think of thee, Dali!) Or perhaps the kakemono, like a scroll, and which one opens like a book on great occasions, will play a part. But the place where man's surplus of life is spent will no longer be his home. Family life is narrowing but in exchange social life is widening, and the painter's canvas will be spread on the walls of edifices corresponding to the new life: universities, stadiums, hospitals, museums, theatres, communal houses.

Everything shows that trend among the objects which the new day will bring. Thus we may forget and console ourselves for present anguish, for there will be above all the painted edifice, painted outside and inside.

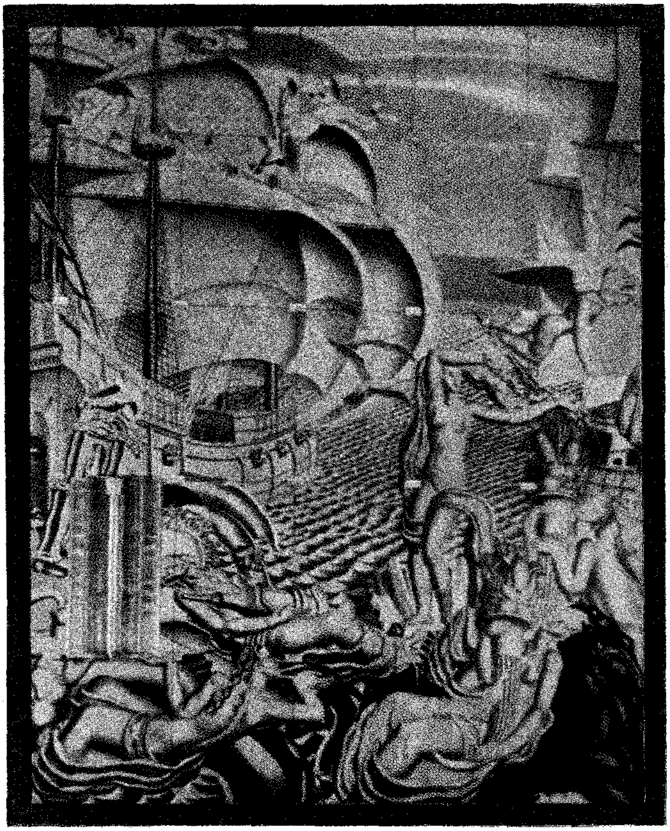
—José Maria Sert



THE FRENCH LINE

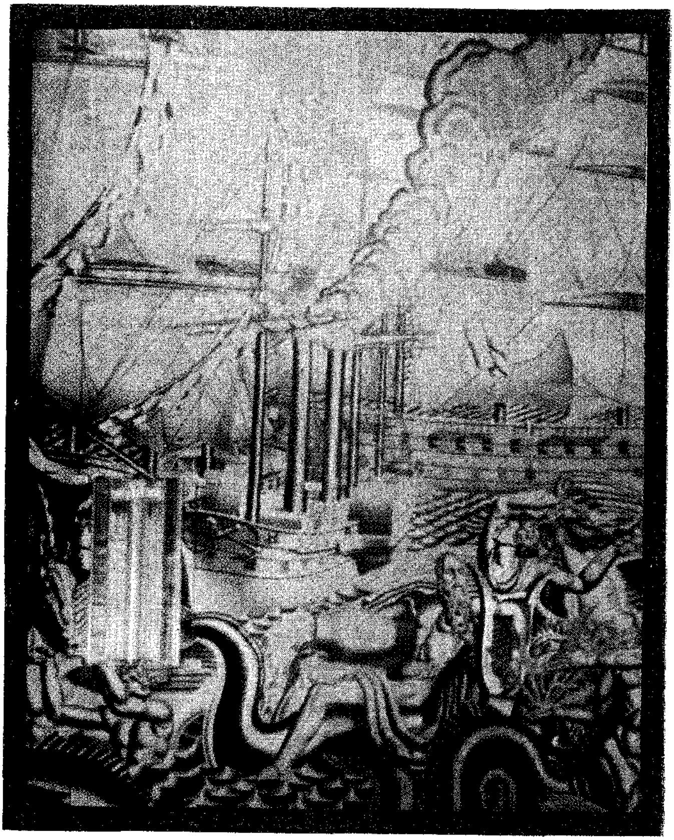
ON THE WALLS OF THE *NORMANDIE*

To see the *Normandie*, trim and sleek for all its unprecedented bulk of 83,000 tons, is one of the unique experiences of our time. Looking big as a berg when first sighted in silhouette from the tender off Southampton, yet it looks as lithe and lean in its lines as any yacht when it loafs unpuffingly past the Statue of Liberty after one of its express speed runs. As befits the proudest product of a nation of art-lovers, its interior lives up to the promise inferred in the functional beauty of its exterior, as witness these four panels from its walls, the first of which, above, is *The Conquest of the Horse*, executed in lacquer by Jean Dunand. It is in the smoking room off the Grand Salon.



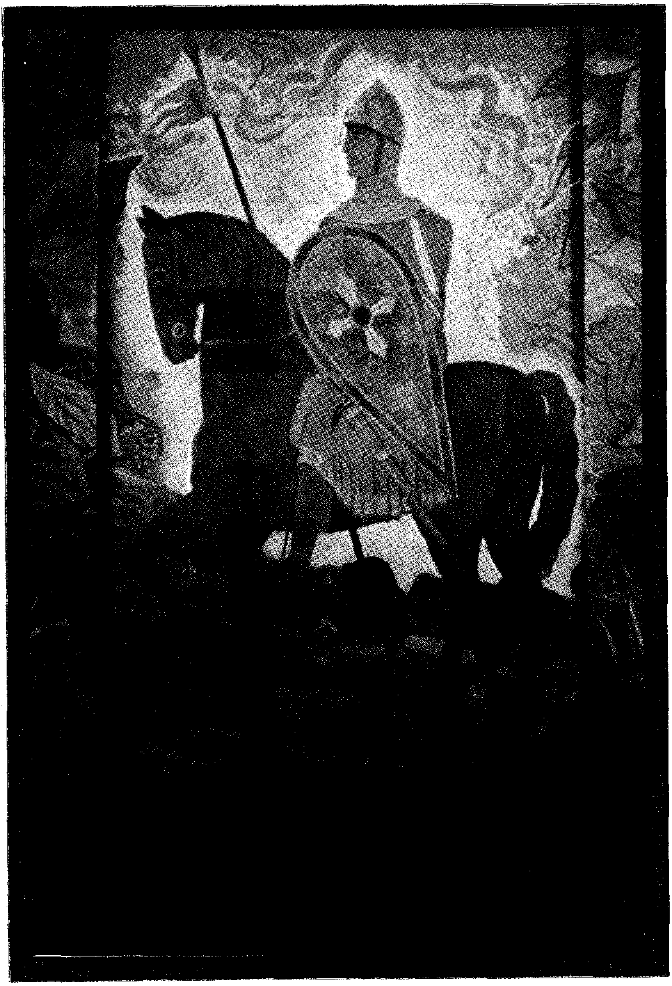
SAIL AND STEAM PREDECESSORS . . .

Today's voyager, wined and dined and entertained across the ocean in four days and a fraction, coddled in the comforts of a floating palace, sees nothing but pictured scenes like these to remind him that life on the ocean wave was not always what it has now become.



OF THE PRESENT'S MIGHTY LINERS

These decorated glass panels by Jean Dupas adorn the walls of the Grand Salon of the *Normandie*. Notice how the crystal lighting fixtures in each instance have been assimilated into the design by the artist's strategic placement of the two figures with uplifted hands.



THE KNIGHT ON THE CHAPEL DOOR

Wrought in enamel by F. Schmied, this more than life-size figure of a Norman Knight, at the door of the ship's chapel, symbolizes the devotion of the modern French people to their ancient faith, typifies the enduring strength of the region for which the *Normandie* is named.

TAKING FRENCH LEAVE

AN ESCAPE FROM A GERMAN FORTRESS THAT FIRED THE IMAGINATION OF EUROPE IN 1911

THERE have been more famous escapes in history than in fiction. The picturesque "break" of Edmond Dantes, hero of *The Count of Monte Cristo*, from the Chateau d'If, for which Alexandre Dumas used Casanova's escape from beneath the Leads of Venice as a model, remains the standard. But no single escape ever thrilled an entire nation as that of Captain Lux thrilled France not long before the World War.

The instinctive sympathy of free men follows a fugitive, even when he is a notorious criminal. And the German military judges who sentenced Charles Lux to serve six years' imprisonment in the old fortress at Glatz, in Prussian Silesia, did not brand him a criminal. They found him guilty of espionage, but no stigma was attached to that, as he was an officer on a special mission, accomplishing a patriotic duty.

The conviction of Captain Lux by a Leipzig court-martial, in 1911, caused great bitterness in France. As a matter of fact, according to the letter of the code, he was an innocent man. But he had been arrested on German soil, and the French Government did not feel its position secure enough for a determined protest.

Lux was an officer in the Engineering Corps. Because of his keen intelligence, his knowledge of German and an aptitude for the work, he had been detached from his regiment to head the Belfort Office of the Intelligence Service.

In December, 1910, he went to Switzerland under an assumed name, to contact a secret agent. Then he decided to take advantage of his proximity to Friedrichshafen to have a look at the Zeppelin Works, presumed to be turning out dirigibles of tremendous size and power. He crossed Lake Constance from Romanshorn and landed in Württemberg. As the actual passport formalities were not in existence at that time, and he wore civilian clothing, he had no reason to believe he would be in trouble.

But the agent he had come to meet had double-crossed him, and tipped off the German Intelligence Office at Strasbourg. And Lux was arrested a few minutes after landing, before he had time to go far from the railway station.

It was a moral certainty that Lux, come incognito to Germany, a member of the French Intelligence, was there to pick up what information he could gather. But there was no legal proof, and a man cannot well be tried for suspected intentions.

Lux, a calm and resourceful man, understood this at once and believed he had little to worry about. On the contrary, he judged his position fortunate. He was sure to be questioned by members of the German secret service, and in one way or another, could learn much about the methods used. Consequently, he did not protest very strongly at first, and allowed matters to progress easily.

But he was playing a game with clever foes, who guessed his intentions. Already, it would have been dangerous to release him, as he had seen several members of the service. The Germans trumped a charge to have some semblance of legality in holding their captive. He was charged with having mailed letters offering bribes while in Germany. This accusation was absurd, as he had not had time to purchase stamps, let alone write letters.

For seven months, Lux was shunted from one city to another, passing through Stuttgart and Strasbourg, until he was tried behind closed doors at Leipzig. German lawyers defended him. Nevertheless, he was sentenced to six years in prison, and charged the costs of the trial, nearly six thousand marks! He was sent to Glatz, on the Austrian border, to serve his term in the ancient fortress dominating the little city.

Lux was well treated, even allowed an orderly. His companions during his hours of freedom in the prison yard and on the ramparts were reserve officers of the German Army, who were most friendly to him. A spy working for monetary reward would have been scorned, but an officer captured while on an assignment was a gentleman and an equal. These Germans were serving short sentences for sundry offenses against army regulations, principally duelling.

Lux thought with dread of the six years of confinement ahead of him. There was nothing he could learn in the Fortress of Glatz that would be of the least use to his government. He planned to escape, and devised one of the cleverest systems known, worthy of a cape-and-sword novel, an escape smacking of the romantic eighteenth century more than of the twentieth.

From the moment of his arrest, of course, his correspondence with France had been censored. But he had imagined a method of private communication, which he used in letters to his brother and friends. He opened the envelopes supplied to him, wrote on their inner surface with a toothpick dipped in lemon juice. While the sheets of note paper probably were tested by his jailers, they did not think of the envelopes. Naturally, as he wrote to men used to secret service work, his messages were found by those to whom they were addressed in France.

The lemon juice was easily obtained, as lemons were served with the steaks. And he would glue the envelopes together again with a solution of sugar and water. His brother and others replied with invisible ink, on the inner surface of their envelopes. Lux merely had to bring the paper near a lighted candle, and the writing would appear.

To start with, Captain Lux asked the permission of his superiors to escape. It was granted. Then he studied the situation carefully, patiently.

He occupied a huge cell in the tiers of casemates facing east, overlooking Frankenstein Street in Glatz. But his cell, the top floor of three stories of casemates, had no windows facing the outside. He found out very soon that the lower casemates were out of use, and had windows facing the city.

His initial concern therefore was to find a way of entering the lower casemates. He ascertained that his floor was connected with that below by a trap door closed by padlocked iron clamps. To reach this trap door, he must open a locked door in the hallway outside his cell. He contrived a metal hook that sprung the hasp of the old-fashioned lock easily. Night after night, he visited the trap door, examined the padlocks. They also were of ancient make.

Lux took a key used to lock the drawers of his dresser, and shaped it patiently, grinding it on the stone floor and on a piece of hard porcelain picked up in the yard. After many trials, the key fitted the padlocks and opened them. When he was sure that this obstacle could be overcome, he carried caution to the point of staining the brilliant worn surfaces of the key with iodine and replaced the iron instrument on a drawer of the dresser. There was always a possibility that someone would become suspicious and order a search of his quarters.

Sure that he could reach the lower casemates and the windows facing east, Lux informed his correspondents of his needs. The windows were grilled with solid iron bars and some of these must be cut through to permit him to pass. To do this, he must have a metal saw, and spare blades. Then, to reach the ground from the window he had selected, a distance of twenty-odd feet, he needed a stout rope. This rope could not be left hanging, so he imagined a pulley arrangement to retrieve it. He might want it to scale the outer wall of the fortress, on the city level.

He must be ready, once outside, to turn aside suspicion if questioned, to have some proof of a different identity. Then he would need ready cash, which was not allowed him in prison, either to live in hiding a while, or to pay his railroad fare. In case the railroad was guarded too soon, he would need a map to make his way overland on foot. Saw, blades, rope, money, passport and map all had to come from the outside.

This offered considerable difficulty. The parcels sent to him from France were examined attentively, had to pass inspection by the military warden. Yet, in those parcels must the required articles come.

The rope problem was solved soon. Lux' brother sent him a package of toilet articles, which included a dozen large towels, revealing nothing suspicious. But these towels were of selected material, and could be torn to strips and woven into a solid rope. In the same package came a Sandow-Exerciser, an object obviously of prime necessity to a young man in confinement, apt to grow sluggish through physical idleness. The grips of the exerciser made excellent pulleys also.

Lux needed something to tie the towel strips securely. As he was permitted to receive newspapers, and had availed himself of this permission freely, the bundles of publications started to arrive fastened with three feet of string, resembling ordinary twine but in reality selected for strength. Lux was now supplied with his strong rope and a pulley.

The passport arrived. It was presumably Swiss, bore Lux' photograph but an assumed name. It had been inserted in the cover of a small diary included in a parcel of shirts and linen purporting to have come straight from a Paris department store. The prison officials saw no reason why a prisoner should not keep a diary. Inmates with a hobby are supposed to be better satisfied!

Lux' friends in France obtained a large-scale military map of the Glatz region with ease. But, for a while, they were puzzled as to the method to be employed to have it reach the captive. The year 1911 was ending, Lux had been in prison six months. A calendar for 1912 arrived from France, a large, ornate cardboard, with the usual loose-leaved dates to be torn off from day to day. The warden examined this calendar, and allowed it to be delivered.

The date-block was the map, folded to fit, its edges glued solidly, and a splendid "January 1, 1912" pasted on top. Lux kept it in sight, and only he knew that by dipping the date-block into tepid water, he could obtain the best map available of Glatz and vicinity!

The saw, the blades and twenty-four gold coins of ten marks each came in one shipment, concealed in the leather-bound covers of Frederic Masson's *Napoleon and Women*. Care had been taken to distribute the weight so that the tome might be picked up, opened, without being out of balance. The places where the binding had been tampered with had been mended with care, rubbed with fine sand paper to simulate wear. To make doubly sure that the military warden would not scan that volume too closely, Lux' helpers included in the same shipment a couple of books ornamented with interesting, if immoral, illustrations.

The warden reacted in a masculine fashion. He hurriedly got rid of the serious books by having them taken to the prisoner, and investigated the pictures with attention. His questionable taste in literature served a good purpose for Lux.

The captain had heard that a police dog was kept to track down escaping prisoners. He prepared for this emergency by asking his orderly to purchase for him a pound of pepper, saying that he was French and liked his dishes spicy! The orderly obeyed. He may have been careless and stupid, but even an intelligent lad could not at once connect a bag of pepper with a police dog!

The preparations were the difficult part of the undertaking. With everything needed smuggled to him, Lux was ready to start on December 27, 1911. On that evening, he sat down to write a letter to the military warden, explaining that he could not stay six years. This note he left on the table. Under the blankets of his bed, visible from the courtyard window, he shaped a dummy.

Then he picked the lock of the first door, opened the padlocks of the trap with his manufactured key, and was in the lower casemates. In a few hours, he had sawed the bars of a window; a few minutes later, he hurdled the grilled gateway opening into the city. There was thick snow on the ground, it was bitter cold. Sentries were drowsy, inattentive. There was no need for the map, for the bag of pepper. Lux went to the station and took a train for Austria.

On December 31, 1911, a year and a few days after his arrest, Captain Lux was back in Paris.

The news of his escape started the wildest enthusiasm, for his trial had attracted much attention. He was the hero of the day, the darling of fate. Somehow, his daring escape, so cleverly accomplished, appealed to the people as most humorous. It was a smart trick played on the ancestral foes, a victory of French wit and resource over Teutonic methods. The whole of Europe laughed. Even Germany found amusement at the discomfiture of the military jailers, who had worked so hard to take Lux, try and convict him, and had allowed him to slip through their fingers so foolishly.

In the first flush of enthusiasm, Captain Lux was promised the Legion of Honor for his feat. Then someone in high office probably thought that this reward might be mistaken as official nose-thumbing by the German Empire. And Lux went undecorated for some time longer. The World War came, there were new heroes by the score, and the captain was forgotten.

But whenever escapes are mentioned, he deserves a place. And he remains the man who made a Continent laugh.

—Georges Surdez

CONSCIENCE MONEY

IF THE REVENUE COLLECTORS DON'T GET YOU, YOUR CONSCIENCE WILL

IF YOU have stolen something from the Federal government, whether it be through the use of a canceled postage stamp, the evasion of customs duties, or outright theft of money, and your conscience bothers you to the point where you want to return it, and you actually do return it, you won't by any means be the first to bring about such restitution.

The United States is in the conscience salvaging business to the extent of there being, on an approximate average of every two days throughout the year, a sum of money paid to the Treasury Department by a person who has stolen it from the government finally deciding to pay it back. These range from one cent to $80,000. In the 125 years since 1811, when the first contribution of $5 was received, $623,319.74 has been paid to the government for this purpose. This makes an all-time average of about $5,000 a year.

Conscience money is the popular term for the sums received. The Treasury Department enters them on its books under the heading, "Miscellaneous Receipts, moneys received from persons unknown." The fund is deposited into the general Treasury balance for use in meeting expenditures of the government.

The first thing most people want to know about conscience money is how the money is returned. Most of the money is sent in currency, in the form of bills, wrapped in a package, and addressed to the Treasurer of the United States. Only occasionally is there an accompanying, or a separate, letter of explanation.

In some instances there is nothing hidden about the transaction, and a check is sent along with a letter. In these cases the sender always requests that his name be withheld in any public statement about the affair. More often, if names are stated, they turn out to be fictitious.

The people who have taken intricate and mysterious steps to prevent any investigation have done so because they do not know how the government stands on being robbed and then coolly paid back. The most recent contribution of any size, $2,900 sent in a package to the home of the Secretary of the Treasury, Henry

Morgenthau, Jr., was mailed on a railroad train running between Philadelphia and a near-by city.

The most involved transaction was that of the man who wrote saying that he had smuggled $12 worth of dutiable goods across the Mexican border and now wanted to pay the duty on this if the government would figure it for him. He sent 35 cents for an advertisement stating the amount owed to be printed in a western newspaper. The Treasury Department published the announcement and in due time along came the money for the customs duty evaded.

One man, to be sure his money was received without being stolen in transit or upon receipt, cut bills amounting to $250 in half, and sent the halves to two different government bureaus, explaining his action to each. Another sent his payment along in the shape of only one half of the bills, and asked for a receipt of those before sending the second half.

The conscience-stricken swindlers are often sensitive enough to figure interest on their thefts. In one case an exaggerated sense of honesty was expressed when a young woman who had been a clerk in a draft board during the World War wrote that she had often scribbled messages of encouragement on notices sent out to men selected for service, and believing herself guilty of abusing the mail franking privilege, she sent $340 to cover the expense, all the money she had in the world. The Treasury Department sent her money back to her, saying that she owed nothing.

That incident well expresses the legal attitude of the government on this curious business it does. The practice is not to prosecute donors, as long as they have made restitution. If it became known that the government investigated and prosecuted, conscience money income would soon dwindle.

In the case of large sums with which no name is sent, a statement is made to the newspapers, which acts as the government's receipt and notice to the sender that his money has arrived. In any case the Treasury Department, though not stating so officially, will, upon name and address being given, mail a formal receipt, with no questions asked.

The means of theft are as many as there are possibilities of stealing from the government, the leading ones among them being appropriation of supplies and money, and evasion of taxes and customs duties. The only thing not yet mentioned in letters as being restored is the evasion of income tax, which seems to be accepted as being fair game, with no holds barred.

The motivations for paying back the sums are varied, with religion leading the list. The following letter is a good example:

"Being saved by the Grace of God my conscience bothers me and gives me no peace before I make restitution. Being that the Holy Spirit reminds me to send $25 I do so knowing that it will more than cover it. It was by the Grace of God only that I was able to do this."

Another, however, takes pains to point out that religion had nothing to do with his regaining the sweet peace of mind that follows from easing a sense of guilt.

The matter of the largest single contribution ever sent at one time, $30,000, is the only one on record that had repercussions. This sum, sent in bills in a loose package, was part of $80,000 the man had sent in all. The man wrote as follows:

"In a separate package I am sending you $30,000 to be added to the Conscience Fund. This amount makes a sum aggregating $80,000 which I have sent the U. S., or four times the amount which I stole years ago. I have hesitated about sending all this money because I think it does not really belong to the government but conscience has given me no rest until I have consummated the four-fold return like Zacchaeus, the publican of old. That every thief may understand the awfulness of the sin of stealing is the sincere wish of a penitent. Let no one claim any of this amount on any pretext."

Following the publication of the notice acknowledging the receipt of this money, someone did claim part of it. A letter was received from a woman who stated that she was the wife of the contributor, and went on to say that her husband, because of his habitual drunkenness, had sent $15,000 too much, which she requested to be returned to her. Representatives of the Treasury Department were assigned to investigate this claim, and found it was pure fake.

The three most "conscientious" years were 1916, which was the year of the famous $30,000, with $54,923; 1902, which yielded $35,868; and 1868, which chalked up a respectable $29,000. The gold year of 1929 lived up to its name in conscience money, rolling up $20,999. 1930 dropped to $6,000, and a little more than this figure was approximately maintained throughout the depression, except for 1932, with an ignominious $2,924.

Various presidential administrations appear to have affected this branch of income of the government. Woodrow Wilson stirred more people to contribute than any other, his eight years bringing in $106,000. Theodore Roosevelt's seven years counted a gate of about an even $100,000.

Franklin D. Roosevelt's first three years brought in only $22,624, which does not uphold the bizarre record of the fund in past years of financial crisis, for the panic of 1857 did a conscience money business of $1,300, whereas the year previous was only $150, and the year following but $208. The panic of 1873 brought $23,000, far above its surrounding years, while the crises of 1884, 1907, and 1914 upheld themselves very well. Perhaps this shows that people in the trough of fear are prone to be more honest than when comfortably riding the crest of a wave. —THEODORE PRATT

THE CONDEMNED

IT IS NOT IN STRIVING FOR HEROISM, BUT IN RENOUNCING IT, THAT A MAN BECOMES A HERO

CHAMBRY's car went down the long lane, bordered with ancient lindens, autumn-gold. On his right, spread the fields. On his left, stretched the endless spiked wall of the prison.

He stopped before the gigantic, armored gate, got out, and rang. A wicket was opened, behind a steel plate dotted with peepholes.

"Attorney," said Chambry.

"For who?"

"Andrioux."

The guard went back into the depths of the corridor, toward the warden's office. A moment later he returned; without saying a word to the lawyer, the guard opened the gate and closed it after him.

"Well, my friend?"

"It's all right, sir. It'll be all right."

"Courage, eh?"

"I've told you it's nothing to me. When a man dies for his ideas, he has no right to whine. He's asked for it."

The two were alone in the tiny cell. Chambry had placed his brief-case on the table. Andrioux, the anarchist, a tall, pale lad with hollow cheeks and intense eyes, avidly breathed in the smoke of the cigarette which his defender had just given him.

He had been carried away by an idea—one of those obsessed souls in whom theory is the mother of action.

He had become involved in a political demonstration that had resulted in a man's death, and the jury, determined to set an example, had condemned all of the suspects in a single swoop.

Andrioux went on, "I gave up my skin long ago. They can keep their pardons."

"Still—there is reason to hope—"

"I'd rather have it over with right now. Especially if that crazy idea of Dr. Priems can go through. That'll be swell! Got any news?"

"Yes," said Chambry.

"Uh-huh! Good?"

"Sorry. No."

Consternation spread over the face of the anarchist. "The pigs!" he murmured.

He stared at the cigarette, burning down between his fingers, forgetting to smoke.

"Why have they refused?" he asked.

"It's this way," said Chambry. "Dr. Priems, of course, when he heard of your request that the sacrifice of your life be used for the benefit of medicine, came at once to see me. Upon my advice, and with my concurrence, he wrote to the governor—"

"Yes."

"He explained, in his letter, that he had a young patient who must soon die due to the insufficiency of his surrenal glands. He asked if he might not remove one of your surrenals before your death, and graft it onto the young man. He explained that the chances of success would be greater if the graft were taken from a live subject. And since your extraordinary offer—"

"Yes, yes! I know! But what did they answer to that?"

"The governor replied that it was impossible. For if, by some miracle, the operation were successful, and you saved the life of that young man, you would become a sort of hero. And then they could not very well punish—"

"So I must not become a hero," the anarchist concluded bitterly.

"They'll try, all the same."

"How?"

"I don't know. Dr. Priems said . . . maybe . . . if there was no other way . . ." he became confused.

"I understand," said Andrioux. "After I'm dead, eh? Right after they've cut me down . . . he'll take a chance on it! That's it! I guessed, huh?"

"Well, you understand—" The lawyer shrugged his shoulders.

All alone in his cell, Andrioux pulled down the plank that was his bed, and sat on it, sobbing. So they would not let him realize his last dream, his last wish to be of some use, to save a life. If he did save that life, it would be after his own death, impersonally, almost in spite of himself; like some animal sacrifice, unconscious, and without any merit.

"They don't want me to be a hero!"

Then he began to think of the operation which they would try, in any case, upon his corpse. Could it succeed? Could a bit of his flesh, still half-alive, torn fresh from his cadaver —could that bring life to another human being?

After all, that was the essential thing. That was the thing he had asked for.

To be of some use! Well then—he still would be that. Less than he might have wished, but still useful! All at once, he understood the part that vanity and pride had played in bringing him to offer his life to science. And he was able to free himself. He would be used, as the body of some animal might be used. It would not be of his own free will, true! But in spite of everything, he would be used. What more than that had he asked?

And it was precisely at that moment, unknown to himself, that Andrioux, in renouncing the role of a hero, attained heroism.

—MAXENCE VAN DER MEERSCH

ONION JOHN

SHELTERED FROM THE WORLD'S TURMOIL, WITH HIS ONE PASSION, HE LIVED A PERFECT LIFE

He had probably lived a very dull life before a sanity commission somewhere sent him to the institution. Possibly he was a clerk; not the robust, beaming variety, but a timid, thoughtful one. His tastes were simple. He tried hard to please and not to offend. But he worried about his health, he worried about catching his train, he worried about everything he could find to worry about until Mother Nature ran across him when she was in a kindly mood. There are times when the meek do inherit the earth. He was harmless enough; but the utmost in conventionality is demanded from clerks. Civilization, for all its own hysteria, makes no allowances for those who do not conform to its standards. So John was found to be insane.

Only the uninitiate believe that one who has entered those grim walls as a patient loses his life and his identity; nor are all the lives within lived in an inferno of specters and voices and uncontrolled passions. When John became a patient, he began to live a more perfect life than he could ever have found in the land of the sane. As soon as his hopes and dreams and disappointments were nicely translated into sad demonstrations of his psychoses and neuroses, they gave him a niche in Building X, Ward Y and that became his home. Shelter and food were his, free from worry. When they found that he retained a boundless respect for rules and regulations, and would think of doing nothing without permission, they gave him a ground parole that gave him a real freedom from early morning till night. He knew well enough the advantages he enjoyed, and survived unscathed the best efforts of the staff to send him out into an unsympathetic world. He had no relatives to try to lure him out with false temptations. In spite of his meekness, he knew his rights. There was the doctor who objected to the way that John was cutting his grass. John calmly dropped the lawn-mower and patiently explained. "I am a ward of the state and my labor is voluntary." He did not finish the lawn.

He was very much at home about the institution when Dr. Brown came to his building. Dr. Brown was a friendly soul who looked upon patients as people, and there was no reason for disliking John. John, too, was friendly, and did not have much opportunity to express it. He began to do small favors for Dr. Brown. He would, for instance, tear into slips the book section of the Sunday Times. These he would carefully fasten together and even annotate. Dr. Brown would profess gratitude and never confess his ignorance of the relation between the incomplete clippings and their notes. John was too polite to question the doctor's understanding, or explain it to him, for he had both respect and admiration for Dr. Brown.

When the doctor reached the point in his lecture course for the new nurses where he could use John to demonstrate a type, it made John very happy. He liked to make speeches to the nurses. First of all, he liked to make speeches. He would often be out under the windows of the staff house where the doctors and attendants lived, making speeches as early as 6:30 in the morning. He made speeches all day, with or without audiences, though he preferred an audience. Then, too, he liked women. He felt that they were infinitely superior to men, more sensitive, "nearer the earth." He looked forward to those speeches to the nurses, and prepared them carefully. The nurses, slaves to convention in speeches, with minds that could not travel on the planes his so nimbly followed, thought them rambling affairs of whatever came to his mind.

"A fifteen-year-old text book," he would marvel, "and written by Mary Beecher. Young ladies, speed is a horrible thing, injurious to life and limb. I have explained this to five thousand seven hundred and sixty-nine motorists. I am fond of rabbits. They are born quietly, live simply, and fulfill their destinies. Dr. Brown brings me magazines to read. I am a liberal, but I find the *New Republic* too radical." And when the doctor decided that his time was up, John would leave them sadly. "I was very happy to speak to you today. I wish that I could come back to speak to you tomorrow. Tomorrow I shall have to go out and speak to the trees."

With the stress placed upon occupational therapy, they tried to find a job for John. They concluded that he was lazy and gave up. John went back to his business of making speeches. When Dr. Brown suggested that John wash his car, John accepted gladly. He washed it very well, and Dr. Brown wanted to pay him for it. John felt no need for money, except a quarter a week for tobacco. This soon troubled the doctor, for at the first bit of mud or film of dust, John would wash the car, and country roads are always either muddy or dusty. The doctor called John in for a conference.

"You do so much work on my car, it bothers me to give you only a quarter a week. If you won't take money, isn't there something that I can get for you, something you want?"

John looked at him carefully, wondering if he dared, hope in his eager voice. "Would you get me—five pounds of onions? They are very good for you, and I like to eat them every day."

"How would you like twenty-five pounds of onions?" asked the doctor.

A great light shone in John's face. A dream long hidden and carefully guarded might come true. "Twenty-five pounds!" he exclaimed in unbelieving gratitude.

The next time that Dr. Brown went to the village, he came back with a fifty-pound bag of onions. There are no words to describe the ecstasy embodied in those onions for John. People who live in the dull worlds where languages are made have no such delights to express. John shouldered the bag of onions and followed Dr. Brown to his office. A long series of conferences resulted. The first problem was where to keep the onions. They remained in the doctor's office while every nook and cranny of the tremendous grounds was investigated and rejected. The doctor was regularly consulted. Wasn't this place too warm? that too cold? this one too damp? that one insecure? It was reaching the proportions of a major disaster, both to John, who wanted to get at his onions, and to the doctor, who found it inconvenient to have fifty pounds of them in his office. At last a staff meeting was called to settle the matter. An unused shack just off the hospital grounds was found and negotiated for. John approved of the place. He took his bag of onions and departed.

The next morning when the doctor came in he found this report on his desk in John's neat handwriting:

257 onions of medium size
3 of them in bad condition

Lest the doctor doubt his word, the three onions in bad condition were there, too. A little later there was a timid knock at the door. It was John. He had "business" with Dr. Brown. He was willing to wait while the doctor went up to the infirmary to perform an operation on one of the patients, because this was serious business. If he washed Dr. Brown's car every time that it was dirty, how often could he expect onions? The doctor asked him how many he thought he could eat a day and discovered that John felt that there was no limit to the number. He recommended, therefore, that John make it five a day. John looked a little crestfallen, but consented. By this time the air was heavy with the aroma of onions, and the doctor retreated a little and opened a window. John sensed at once what was wrong and was very concerned.

"Perhaps—if it wouldn't be too much—if you want to make it a few less onions—though they are very good for you—you would get me Sen-Sens?"

So the doctor bought John Sen-Sens and onions, and there was nothing that John would not do in return for Dr. Brown. The better his efforts to improve his health became known, the fewer were his audiences, and he had to rely more and more on his one faithful listener. The doctor soon discovered that Sen-Sens and onions make a much worse combination than onions alone.

Sometimes John did not feel as well as usual, and then he would find it necessary to eat a few extra onions. As a result of this additional strain on his supply, he would sometimes run short before the time for the next bag came around. The doctor felt that it was necessary to stick to the original agreement, for there was no telling just how far John's passion for onions might carry him.

His interest in the welfare of Dr. Brown's car became so great that finally the doctor began to fear that the paint would not prove equal to John's gratitude. He tried pointing out that the car did not need washing. He made John feel that it was bad to wash the car on Saturdays and Sundays when all the visitors came. He pleaded, coaxed, argued; but all in vain. In desperation, Dr. Brown assigned him to wash the assistant doctors' cars, too. John did not care particularly about them or their cars; but an order was an order, so he washed them. He had to wash them in turn.

John still had not solved the problem of what to do when he ran short of onions. He finally took it to the doctor. The doctor had an inspiration which would prevent having John's undivided attention centered on the cars, and at the same time would provide more onions. Fortunately, it was spring. The doctor bought John a package of onion seeds.

Even when the only car in John's care had been Dr. Brown's, there had been a certain timing to the washing. When it was almost time for more onions, the car got extra baths. When the onions first arrived, gratitude made him anxious to please. In the middle period, when there were plenty of onions, he was content to let it go at once a day. Now a bag of onions had just been received, yet John did not show up to wash the car. He was looking for a place to plant the onions. Without much trouble, he himself determined upon a patch of ground well fertilized by the rabbits. He dug a hole and threw in the onion seeds. After all, John had not been trained to be a farmer. He went every day for a month and anxiously looked at his onion patch. He even had the doctor come and look at it to make sure. There wasn't a sign of an onion.

John felt that this disaster had but one explanation; the ground was not right to grow onions. Would the doctor buy him some more seeds? The doctor bought him the seeds, and John began looking for a place to grow onions. It was as difficult as it had been to find a place to store his first fifty-pound bag. He finally had to appeal to Dr. Brown again, who asked for a little time to deliberate. When there was a moment to think of it again, in between being psychoanalyst, surgeon, and general practitioner to several hundred patients, he called John. The ideal place to grow onions, he assured him, was behind the staff house. The doctors all had a small patch of ground there, and John might use his. That appealed to John at once, and had a certain importance not to be overlooked. About four square feet were measured off and became John's to use. He had already become "Onion John" to the staff who began to watch the garden with interest. This time John carefully measured out rows and planted the onions according to the directions on the package. He was skeptical at first; but at the first sign of a sprout, that patch of ground became sacred. After all, it was pregnant with embryo onions. There wasn't a fence of any sort on the hospital grounds; but somewhere John found some barbed wire and fenced his onion patch, just to make sure vandals would not despoil it. He spent most of his days there, except when he was washing the cars—which actually looked dirty now and then. And he made some of his very best speeches to those budding onions.

One of the doctors stopped one day to ask John if he felt that a fence was enough. "Why don't you," he suggested, "put up a sign: 'PRIVATE, for Dr. Brown.' "

John thought a moment. "It's a good idea," he admitted, "but I must have Dr. Brown's permission."

"That's all right," said Dr. Black. "He won't mind and I'll bring it up today at staff meeting."

So John made a sign:

PRIVATE, for Dr. Brown
per Dr. Black

Dr. Brown finally felt that the situation was getting out of hand. He appealed to John, as man to man. "Don't you think that you'd better take down the sign and fence, John?" he asked. "After all, it does reflect on the character of the doctors that you should take all these precautions on my land, here at the staff house."

John succumbed out of respect for the doctor, but with misgivings.

On the third day of three very rainy days, members of the staff looked out of their windows to see a dripping figure bent over the onion patch with a watering-can, industriously watering the onions. "John," someone called to him, "why are you watering your onions in all this rain?"

John emptied his can and replied, glad to speak to so interested an audience. "Young men, you can force Nature. So much you can expect her to give you willingly, but no more. Lights are left on in henhouses and the hens lay twice as many eggs. That is forcing Nature. Rain is good for plants. Nature will give my onions just so much rain and no more. I want a lot of onions. Onions are very good for you. So I am forcing the work of Nature in my onion bed." And John excused himself and went away for more water. —HOPE SHIPPEE

DISCONTINUANCE of photographic nude studies in CORONET was threatened, in the July issue, by the protests of about two hundred readers. The concensus of their argument was that painting, being interpretive, achieves the universal, whereas photography, being representational, is bound down to the specific. We asked for answers to this argument. They came in impressive volume, outnumbering the previous protests by a ratio of very nearly ten to one. We can only high-spot a few. The hundreds who voted in favor of nudes "just because" are given best representation by a Honolulu reader's phrase: "I have no answer to make, just as I have no answer to make in defense of symphony music when someone expresses a dislike for it." An argument voiced by hundreds was best expressed from Appleton, Wisconsin: "Your objectors fail to distinguish between two very similar but fundamentally quite different types of photographs, i.e., nudes and pictures of naked women. I too disapprove of the latter type, exemplified at its best (or worst) in certain Artists and Models types of *soi-disant* art magazines."

Other readers called the argument over-rationalized. As one said, "rationalization is the curse of a high I.Q." Another, from Maplewood, Missouri, "The answer to all this is that you have an articulate audience, a class which might be expected to have a knowledge of these ponderous differences between things which—had they been instructed less—common sense would tell them are not so very unlike." Or, as a Minneapolis reader expressed it, "The weakness of the anti-nude-photo position is that it damns nude photographs indiscriminately, ignoring the fact that photography, like painting or sculpture, may be good or bad, moral or immoral, proper or improper. If we don't condemn the nude in art simply because some works of art may be obscene, why turn thumbs down on *all* nude photographs? Taste, not arbitrary distinctions between photography and art, should be the criterion." And Dallas, Texas, spoke for other hundreds in saying "I cannot believe the majority object to anything you have yet published on the grounds of decency or of taste. It is regrettable that usually only the dissenters are heard from. Those who like your work won't tell you so until something stirs them to. Your magazine has that evanescent quality, so rare in American literature and publications today, of intelligent inquiry—a thoroughly open mind. When an intelligent magazine appeals to the layman, that's news. When a sophisticated magazine appeals to the scholar, that's news. CORONET qualifies on both counts." Following the will of the majority, we continue the nudes, hoping to keep them of a quality commanding the respect of both factions.

★ ★ ★

The new issue of CORONET appears on the 25th of each month.

CORONET
for
SEPTEMBER
1937

Continued from inside front cover

NORMANDIE MURALS:

Conquest of the Horse . . . 175
The Age of Sail 176
The Age of Steam 177
The Norman Knight 178

THE AGE OF JEWELRY:

Renaissance Jewelry . 87-106

PHOTOGRAPHS:

COMPOSITION

Milanese Mercury . Stefani 56
Manhattan Venus Whiting-Fellows 57
In Pose . . . . . Deutch 58
In Action . . . . Brassaï 59
Clothesline . . Denkstein 60
Composition . . . Wallace 61
Figure and Curves, Csorgeö 62
Figure and Angles, Kunszt 63
Still Waters . . . Besnyö 64
Beneath the Bridge, Dulovits 65

ANIMALS

Elephants . . . . Wallace 66
Yoked Oxen . . . . Reisz 67
Captive . . . . Denkstein 68
Worker . . . . . . Vadas 69

HUMAN INTEREST

Spanish Father . . Cartier 70
Spanish Mother . Cartier 71
Past . . . . Booth 72
Present . . . . . Stefani 73
Toward Sunset . . Angyalfi 74
Devotional . . . . Kornič 75
"All Created Equal", Vadas 76
Model Sailboat . . Dienes 77
A Cake of Soap, Ajtay-Heim 78
Breton Peasant . Makovska 79
Moroccan Helmsman, Lotar 80
Hiker's Path . . . Tatzel 81
Vigil . . . . Tolnai 82

STRANGE

Apollo in the Rocks . Lotar 83
Tulip Pistil . . . Brassaï 84
Drops on a Leaf . Brassaï 85

PORTFOLIO

Hands of Artistry . . Bruno 111
Of Age Serene . . . Ulan 112
Of Anguished Youth Westelin 113
Of a Roisterer . . Bennett 114
Of a Drudge . . . Bennett 115
Of Vanity . . . . . Wolfs 116
Of Labor . . . . . Barry 117

STUDIES

Head . . . . Blumenfeld 118
Torso . . . . Blumenfeld 119
South Wind . . . . Dorr 120
Sea Grapes . . . . Dorr 121
Étude de Nu . . . Deutch 122
Half-Figure . Blumenfeld 123
Sister Act . . . . Csorgeö 124
Fragrance of Flowers Sheckell 125
Wood Nymph . . . Meys 126
Field Sprite . . . Wallace 127
Flying Rings . . . Gruber 128
Demi-Nu . . . . Steiner 129

SPORTS

Nibble . . . . Kletz 130
On the Isar . . . . . Leigh 131
Dude Up . . . McDaniel 132
Hairy Ape . . . . . Deutch 133

DISTORTIONS

Frenetic Rhythm . Deutch 134
Migraine . . . . Deutch 135

PORTRAITS

Tartar . . . Revesz-Biro 136
Latin Quarter . . Steiner 137

CHILDREN

Nest . . . . Dorr 138
Water Baby . . . . Dorr 139
Morning Song . . . Dorr 140
Imp . . . . Dorr 141

ARNOLD GINGRICH
EDITOR

Manuscripts, photographs and drawings should be addressed to Arnold Gingrich, Editor, c/o CORONET, 919 North Michigan Avenue, Chicago, Illinois, and must be accompanied by postage or by provision for payment of carrying charges if their return is desired in the event of non-purchase. No responsibility will be assumed for loss or damage of unsolicited materials submitted. Subscribers' notices of change of address must be received one month before they are to take effect. Both old and new addresses should be given.

PRINTED BY
GENSTEINER CORPORATION
AT CHICAGO, U. S. A.